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COMMUNICATIONS.

INVESTIGATIONS IN RELATION TO THE CAUSE AND CHARACTER OF THE DIPHTHERITIC POISON, WITH NUMEROUS INOCULATIONS.

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It would seem almost like an unwarranted presumption in me to attempt to add anything to the literature upon this disease, which has been elaborately treated by such ancient authorities as Hippocrates, Aretus and Macrelius, by Frost and Bonanzalinus, by Cresales and Villa Real, Fontecha and Herera, Vasques, Carnaval, by Scambatti and Nolla, Severinus, Ghisi, Fothergill, Huxam, Withering, Keetly, Johnstone, Grant, Bard, to say nothing of more recent writers, who in our own time have nearly solved the problem relating to the etiology of this disease.

According to very many prominent men, the "materies morbi" of Diphtheria is a vegetable spore of such minuteness that only the most powerful microscopes can distinguish it.

Notwithstanding the minuteness of these germs, their abundance and constant appearance have enabled microscopists to study and classify them with exactness.

The following is the generally accepted classification of Cohn:—

1st. Micrococci—Spherobacteria.

2d. Microbacteria—Bacteria Termo, Bacteria Sineola.

3d. Spirobacteria—Spirillum Tenne, Spirillum Undula.

4th. Varied unclassified forms—1st. Sage cocci with sprout-like processes; 2d. cocci with tube-like cells; 3d. cocci with waving processes.

In order to determine the origin of the first diphtheritic germ, we must first decide upon either a "*special creation*," as a starting point in "organic life," which shall apply as well to the bacteria as to the man, the palm or the mastodon; or, we must admit a "spontaneous generation," and the evolution of species from the "environment."

With this aspect of the cosmogeny of organic life the scope of this article has nothing to do. We know that sporadic cases of true diphtheria do occur, where there is no appreciable cause, and we seek in vain for the primordial germs of such cases. The scope of this paper is simply to take the germ as we find it, 'ready made," and follow its varied metamorphoses in its journey upon its mission of *death*, and from a somewhat extended and laborious research seek to establish the following conclusions:—

These bacteria are composed of protoplasmic matter which, from occult cosmic force, possesses a greater amount of vitality than the normal tissues or other septic material. This diphtheritic germ ripens in its soil, is disseminated throughout the surrounding atmosphere. Alighting upon the epithelium of the mucous membranes of the air passages it commences its onslaught upon the integrity of the cells.

These germs pass by a species of osmosis into and among the granular protoplasm of the epithelial cells, impregnating the nucleus with their disease germs, while a portion of the hyaline substance is converted into new cocci. At the same time the bacteria absorb a portion of

the cement substance of the epithelial cells, thus destroying the integrity of the membrane, burrow down between the cells, displacing them and pushing them up above the general level and building up a substructure of micrococci, and by a rapid reproduction of disease germs spreading the contagion to the surrounding tissue. They also penetrate the mucous capsules, break down their internuclear network and absorb their hyaline contents. This process is rendered the more readily possible on account of the soft condition of the cell substances and of the semi-fluid consistence of the cement substance.

This exceeding pliability or elasticity of the tissues explains the phenomena of the elevated patches observed at the onset of this disease, before the poison has invaded the entire economy and before the patches have become confluent.

After having wrought the above mentioned mischief in and among the epithelial cells of the mucous track, the cocci penetrate the connective tissue, dissolving and appropriating the cement substance, separating, softening and finally destroying the ultimate fibrils and propagating a new supply of cocci to further infect the subjacent tissues.

Thus by the astonishing industry and activity of these morbid germs among the fibrous threads and cells of the tissue, separating, infiltrating and enlarging them, the nerves and vessels are encroached upon, shutting off all or a portion of their circulating capacity, and gangrene and death supervene. These same migratory germs attach the walls of the capillary vessels, dissolve their cement substance and absorb such portions as are required for their nutrition; displacing and destroying the endothelial cells, penetrate the vessel and occlude its passage, allowing the contents to escape through the broken surface into the surrounding tissue. Entering the circulation they attack indiscriminately and destroy the leucocytes, the hæmocytes, the albumen and fibrin of the blood.

First attacking the white corpuscle, it is broken up into a coarse granular detritus; thus cutting off the supply of red globules, it destroys and absorbs the embryonic cells with equal avidity. Penetrating the already formed red globule, it causes it to break up into a red pigment, granular mass, which penetrates the vascular walls into the surrounding areolar tissue.

The fibrin seems to be the most readily utilized tissue for these cocci, of all, increasing and uniting with them with wonderful rapidity.

After these poison germs have wrought the above mischief with the tissues of the fauces, they spread into the pharynx and larynx, where, coming into contact with the columnar epithelium, a different kind of activity is manifested, modified by the different function of the cells.

The secreting cells are at first stimulated and excited, and throw out a species of cropous or fibrinous deposit; but secondary disintegration follows, and the same morbid activity supervenes as in other tissues.

Passing still further down into the air passages or alimentary tracts a modified action is observed, determined only by the character of the tissue involved and the resistance it offers to the infecting germs.

Ascending into the superior buccal cavity, nares, Eustachian tubes, middle and internal ear, it ravages and destroys the parts with fearful ease, to a degree dependent only upon the amount of the poison and the resistance of the subject.

Passing still further up into the brain substance it acts upon the functional position, deranging the intellection, and the coördination.

The spherobacteria and the microbacteria seem to be the most virulent of the entire series of cocci, devouring with equal relish the healthy tissues, pus globules and other septic germs not connected with them by ties of consanguinity. These vandals, in their migrations through the tissues, seize upon whatever impedes their progress with an omniverous avidity; penetrating the areolar structure, they destroy the muscular fibrils, nerve sheaths and matter, both gray and white.

This explains the numerous cases of paralysis which follow or accompany the advanced stages of this disease, both by destroying the tissues in the immediate vicinity and by shutting off the nerve supply to distant parts.

The endothelium of the uriniferous tubules and the Malpighian bodies seem to present a very prolific soil for the implantation of these cocci. In these cases the germs are carried through the circulation and dropped upon this prolific soil. These germs at once attack the membrane, burrowing into and among the cells, forming a mass of cocci beneath them, lifting them off, giving rise to the epithelial and hyaline casts which are so pathognomonic of this disease. At the same time, from these denuded surfaces albumen is effused in large quantities. The isolation of these micrococci from the renal excretions was for a long time questioned, but the fact is now established on too firm a basis to require discussion. The mode of ingress and action in the lymphatic system is entirely analogous to that of the rest of the circulatory apparatus: Destroy-

ing the lymph corpuscle as it does the blood globules the interglandular network is broken down and extravasation of lymph corpuscles takes place, producing at first hardening of the tissues, followed by softening and suppuration.

The mode of procedure of this germ in the stomach, liver, bowels, spleen, pancreas and other viscera is analogous to its depredations in other similar organs, and need not be enlarged upon here, but will be more fully noticed in the report of experiments to follow.

These experiments have extended over a period of ten years. At first, not being aware of the valued researches and methods of investigation of the eminent men whom I have since consulted, my investigations were original and crude, lacking method and result, yet during the major part of these years I had believed that the materies morbi consisted either of animal or vegetable spores, but having only a microscope of low power the search for the germs was unsuccessful.

Later, reading the works of various authors, I procured a perfect instrument and continued my researches with the following results. Knowing that the literature upon the etiology, course and treatment was well understood by the profession, and that there was, therefore, little to be learned in that direction; and learning from Oertel, Klebs, Hüter and Virchow, that the germs were infinitely small and difficult to isolate and study their natural history, this branch of the subject appeared to be the field in which to labor.

The first cases were studied only in a general way, while the later cases were studied in pursuance of a definite plan, and a series of inoculations of the different germs made, with the following results:—

Case 1.—8 A. M. Placed a minute portion of diphtheritic membrane upon the conjunctiva of a rabbit, which was of medium size and in good health.

12 M. Rabbit lays in the corner of his cage with drooping ears and paws over the eyes, from which a watery exudation takes place.

7 P. M. Eyes injected, lids tumefied and œdematous, grayish white exudation around point of infection; discharge whitish and milky from both eyes. A slight running from the nose, accompanied by fever, unrest, thirst and pain.

8 A. M. Rabbit dead: eyes covered with a thick brown deposit which can be removed, leaving a raw, ragged surface, lids tumefied and œdematous. Larynx and pharynx heavily coated with diphtheritic deposit; lungs engorged and larger bronchi filled with white cheesy deposit, evidently disintegrated fibrinous deposit. Vessels full of dark venous blood, showing that rabbit died of strangulation from the occlusion of the air cells and bronchi. Lymphatic vessels and glands hard and filled with a cheesy deposit. Kidneys nearly ready to exfoliate.

Case 2.—8 A. M. At the same time, and with the virus, inoculated a healthy full grown cat by placing a plaque of diphtheritic membrane upon the dorsum of the tongue.

5 P. M. Cat feverish, restless and uneasy; slight discharge of saliva and suffusion of eyes. Nose dry and pale. Tongue slightly coated at end and edges, centre and posterior portion covered with thick deposit.

9.30 P. M. Restless, feverish and thirsty; shows mental and moral obliquity, spits alike at friend and foe. Could not examine mouth satisfactorily on account of teeth and claws.

6 A. M. Fever subsiding; tongue heavily coated with grayish white deposit, which is easily detached. Fauces in the same condition. Lymphatic glands hard and tender. The cat was now anæsthetized and five minims of a saturated solution of sodii sulphatis was thrown into the areolar tissues of the neck. The throat was carefully swabbed out with a saturated solution of potassium chlorate, acidulated with acidum hydrochloricum, until fumes of chlorine escaped. One ounce of a two per cent. solution of carbolated water with ½ of 1 per cent. of potassic permanganate, was thrown into the bowels.

10 A.M. Cat fully recovered from the anæsthesia, but restless and uneasy, suffering from fever and pain at the point of injection in neck.

12 M. Confined cat in a vapor of oxygen with a slight trace of chlorine. Respiration rapid and excited; considerable febrile action still.

4 P.M. Evident amelioration of pain and distress. Faucial membranes clearing off; bowels moved freely.

6 A.M. Cat has expelled large masses of diphtheritic membrane and is evidently improving, takes milk freely and evinces pleasure upon being caressed, but upon attempting to purr is seized with coughing and sneezing.

Cases 3 and 4.—Inoculated two pigeons, no result.

Cases 5 and 6.— With a portion of the exfoliated tissue from the throat of the above mentioned cat two healthy adult rabbits were inoculated, one on the right tonsil and the other upon the left conjunctiva. This membrane was removed from the cat at 4 P.M., after recovery had set in. As neither case produced any result, it is to be concluded that the treatment had rendered the poison harmless.

The cat was now killed and the following conditions found. Fauces and larynx presented granular denuded tissue, lower respiratory track covered with light friable membrane. Liver and spleen engorged with red blood.

Interlobular septums broken down in some places and tissues much softened.

Kidneys showed evidence of intense activity. Uriniferous tubules full of hyaline and epithelial casts. Malpighian bodies composed of granular detritus. Cortical substance more soft and pale than natural, infiltrated with urinous and albuminous deposits.

Sept. 10th. Boiled a fragment of beef and filtered the extract. Boiled and filtered a plaque of diphtheritic membrane. Mixed the two filtrates, diluted ten times and enclosed in sealed tubes.

CASE 7.—Sept. 20th, 8 A.M. Inoculated rabbit on tongue with the contents of tube No. 1.

12 M. Tongue slightly furred; thirsty. Fauces show several red patches with elevated surfaces.

6 P.M. Grayish deposit appearing on fauces. Lymphatic gland swollen and tender, cough and fever well marked.

9 P.M. General symptoms much the same. Urine loaded with lithates, phosphates, albumen and epithelial casts.

9 A.M. Rabbit much better; urine less heavily loaded with detritus; faucial patches exfoliating, leaving a denuded surface which exuded a clear fluid.

Complete recovery.

CASE 8.—Sept. 30th. Opened tube No. 2 and injected a portion of its turbid contents into the areolar tissue of the neck of a healthy adult rabbit.

12 M. Marked febrile action; lymphatic glands near the point of infection swollen; afferent vessels full and tense; tonsils coated.

6 P.M. Suffering; high fever; thirst.

9 P.M. Pyæmia fully developed.

7 A.M. Found rabbit dead. Lymphatic vessels and glands dark, livid and full of debris; larynx and entire mucous track clogged with exfoliated membrane and dark granular matter; liver engorged; tissues of spleen and kidneys broken down; Malpighian corpuscles entirely disappearing; tubules friable and full of water.

CASE 9.—Oct. 10th, 8 A.M. Opened the last tube and infected (?) adult healthy rabbit; watched the case for four days, but no symptoms of disease appeared.

CASE 10.—10 A.M. Again, with a portion of the last tube, injected the same rabbit, with the same result.

CASE 11.—8 A.M. Inoculated adult healthy rabbit with fresh diphtheritic poison upon right fauces.

11.30 A.M. Faucial redness with slight exudation.

4 P.M. High fever; cough and laryngeal râles; tongue furred in centre with red edges; diphtheritic exudation at point of contagion.

6 P.M. Trouble increasing.

6 A.M. Rabbit dead. Post-mortem appearances: intense faucial destruction, extending up into nares and ears, passing down bronchi, and lungs and stomach congested; liver and spleen nearly normal; kidneys in an advanced stage of disintegration; blood vessels clogged with debris, small ones ruptured and extravasated.

CASE 12.—8 A.M. With a minute portion of poison from the fauces of a child twelve hours dead from diphtheria, inoculated conjunctiva of rabbit.

4 P.M. Moderate fever; pharynx red and injected; commencing effusion.

9. P.M. High fever; thick grayish patches covering fauces; eyes closed; lids œdematous; conjunctiva covered with dark brown membrane.

10 A.M. Rabbit died during the night; examination presented the usual appearances; the eye injected was entirely destroyed; in places the conjunctival layers were glued together and in others were separated by the deposit.

The humors full of floating granular matter. A portion of diphtheritic tissue from the same source as the last case was divided into three parts, one of which was triturated with a five per cent. solution of acidum carbolicum, another with a one per cent. solution of potassic permanganate, while a third portion was triturated with a five per cent. solution of aqua chlorinii.

CASE 13.—8 A.M. Applied a drop of solution No. 1 to the tongue of a rabbit of full size and health.

4 P.M. No symptoms; 9 P.M., none.

6 A.M. Slight febrile symptoms; white exudation appearing.

12 M. Buccal cavity thickly coated and symptoms well marked.

4 P.M. Febrile symptoms subsiding. Local symptoms still in statu quo. Cough and nasal discharge. Urine high colored.

9 P.M. Symptoms improving; exudative deposit falling off, leaving granular membrane beneath. Urine lighter and containing less solid matter. Recovery.

CASE 14.—Two days later.

8 A.M. Applied portion of tube No. 2 to fauces of rabbit. 12 M. No result. 4 P.M. Slight malaise. 9 A.M. Redness at point of in-

fection. 12 M. Slight exudation and febrile symptoms. 10 P.M. Symptoms much the same but deposit thicker and more opaque. 10 A.M. Slight fever and thirst; membrane spreading into posterior nares; faint, moist râles; urine slightly turbid. 4 P.M. Deposit has exfoliated leaving red, granulating surface. 9 P.M. Fauces more natural.

10 A.M. Third day: symptoms nearly normal, except watery eyes and albuminous urine.

(To be continued.)

THE PROTECTION OF THE PUBLIC AGAINST VENEREAL POISON.

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The questions to be considered in reference to this subject are such as the following:—

Are there no available means of curtailing the propagation of the venereal poison, and preventing its terrible consequences? Is it useless or immoral to get this devastator of health and life under some form of legal control, for the purpose of promoting its subjection? Is it more immoral to devise legal methods of suppressing its propagation, than it is to leave it to ravage throughout all elements of society? Are there any existing institutions in America that appreciably lessen the physical infections of the social evil? These are questions that stare us in the face on every hand and every day.

The limits of this paper prevent more than a cursory glance at a few of the phases of the subject. Passing speculative arguments in general, and the literature of foreign policies regarding the suppression of venereal diseases, the writer will here confine himself to considerations of the nature and dangers of the social evil in our own land, and ask some attention to the adoption of practicable means for the protection of society against the vices of prostitution. For the purpose of intelligently studying the complicated problem before us, at material expense of time and labor, facts as they are have been gathered for the writer's use, that he might know whereof he spoke and speak whereof he knew, and possibly be enabled to throw some feeble light upon indications of remedies for the gravest and saddest evils that afflict the present generation.

It has been authoritatively affirmed that every harlot inevitably becomes a source of disease, and, for the sake of a livelihood or gain, spreads it abroad as inevitably. They studiously keep aloof from salutary moral influences. They are largely self-elected outlaws, engaged in outlawry against the dearest interests of society. With about 100,000 such creatures in the United States, one half of whom are hardened and determined, it cannot be supposed the American people can escape contamination, both physical and moral.

It has been coarsely affirmed by certain female opposers of legalized restrictions of prostitution, that "if men are so brutalized in their passions as to resort to houses of prostitution for lustful gratification, they deserve to suffer the penalties." But such philippics indicate a narrow comprehension of what is involved in the complex problem. To hypothecate that man in whom a more or less disturbing sexual appetite has developed is brutalized because he seeks the association of women, is, in the abstract, a defamation of the sex he solicits. Individual experience and predilection should not be made the criterion for all others.

On the great moral subject of diminishing the national evils of venereal infection few writers and speakers in this country have dared to raise a voice. The reason of this reticence has been the mistaken one, that the long recognized prerogatives of prostitution must be guarded from the publicity of assault on account of their indecencies. Should a flagrant evil be granted unrestrained license, rather than legislate for its restriction? The contagions of venereal diseases are among the most general and persistent in existence. They produce a degenerative modification of function. Their cachexia predisposes the system to invasions of many diseases. The lungs, liver, glandular system, skin, uterus, brain, are organs specially prone to injuries of syphilization; and many of their diseases are expressions of either direct or transmitted venereal infection of the blood. The wealth and greatness of a country are vested in its population. Any contagion that specially devastates population is a national calamity. Venereal poison is such a contagion. By its enervation of the vital forces multitudes of children are deprived of the boon of life before they are born; and the blight of death is visited on yet larger multitudes of children before they reach the age of five years.

Many have acknowledged the necessity for limiting this poison, but what have they proposed?

One anxious lady writer asks, "Is there not virtue enough in the land to induce legislation in favor of shutting up houses of prostitution, and of so destroying one means of poisoning the atmosphere of their localities and the nature of those who frequent them? Desperate circumstances require the application of desperate means to better them." But it is not the houses

that spread the contagion. It is the courtesans and their patrons. So long as other houses may be obtained by prostitutes, the spread of venereal poison proceeds unchecked.

Another friend of reform asks: "Would it not be better for the world, for herself, if the public woman was kept in the prison cell or workhouse all her lifetime, than to let her run at large and ply her dreadful vocation?" But where is there prison room for a hundred thousand abandoned women? How are they to be supported? controlled? moralized? made self-respecting? womanly? New recruits are constantly being added to the ranks of prostitution. What shall be done with these? Without registration of houses and inmates, how can executive officials determine who are the guilty?

There is another rock on which sentimentalism and candid reasoning split—medical examination of the courtesan. The practical reformer advocates a sanitary morality. He knows that contagion is not suppressed without cleanliness and therapeutic medication. Opponents to legal control of contagion cry out indignantly, "this examination is a tyranny, an infamy." One writer declares this medical examination of prostitutes for the purpose of suppressing venereal diseases "an invasion of the most sacred part of their physical nature—execrable." But would there be either justice or reason in consigning these unfortunate creatures to prison for life and let them die, rather than humanely institute measures for cleansing and healing? Which would be the greater "indecency and offense"? What are the facts?

As to the right to close houses of prostitution, there has been legislation already, if the charge of "disorderly conduct" is proved. But it is seldom that a bawdy-house is ferreted out and shut up. Who is to produce the proof upon which to establish conviction? No charges are preferred on the ground of venereal poison, physical and moral pollution, that should be brought under sanitary control.

As a sanitary preventive of venereal contamition, many worthy, liberal thinkers advocate the multiplication of Reform Homes and free dispensaries and hospitals for the admission of the fallen and the treatment of venereal infectious. These institutions are beneficent in purpose. but utterly fail to prevent or perceptibly reduce venereal disease. These institutions do not operate as preventives. Especially with women, going voluntarily to a hospital, "to be burned," as they term the treatment, is like going voluntarily to have teeth extracted—they don't go unless pressed to do so. In the absence of any timely efficient moral agency bearing upon their action they apply for relief *after* their systems have become so fearfully diseased that, through broken health or repulsiveness of person, they can no longer successfully ply their vocation. Earning, by the use of their person instead of by the use of their brains and the r hands, the money that must clothe them, pay their high-priced board and contingent expenses, these women are never ready to voluntarily "stop business" for any medical treatment they imagine they can dispense with. As a rule, they have no money ahead for a "rainy day." Usually they are ignorant on the subject of venereal diseases. They have never listened to a lecture or read a paper relating to the physical perils connected with their position. Such a woman becomes infected; has a chancre, perhaps a large one, located in parts she cannot inspect; experiences derangement in health; don't know what is wrong; continues her daily precaution of washing; *sees* but little "show;" continues plying her vocation, perhaps with some discomfort, of which she reveals nothing to her customer; chancres multiply: her voice becomes hoarse; she thinks it a cold; is feverish; takes a glass of hot gin, for perspiration; a cough ensues; she buys a bottle of expectorant from a druggist; continues plying her "business" until she breaks down and is compelled to go to some hospital. Who can estimate the consequences of the contagion she spreads before she applied for the relief the hospital gratuitously offers! Through a hundred causes, girls and women may find themselves on the down grade of prostitution before they are fully aware of it; they simply have learned such women may "get the disease;" but each one fancies she will have better luck and "keep all right"—until she realizes that she has been unfortunate and is "all wrong." If appealed to on the subject of her danger, she indifferently replies: "Well, I must do something for a living—I must take the risk, like other women:" She gives no thought to the welfare of those who are endangered by her.

As a means of preventing the spread of venereal poisons, the Magdalen Homes are without result from the fact, that they are sought by an exceedingly small number. The "Midnight Mission," in this city, located in a neighborhood of social evil dens, seldom has over fourteen to eighteen inmates, notwithstanding the advertisement of the objects and gratuities of this institution regularly appears in the *Public Ledger*, that goes to nearly every house. The

erring must be followed up, sought, and brought under reformatory influences; but a small number, indeed, will ever come. Therefore, for the efficient working of even this form of remedy, some system of registration and surveillance is clearly essential. There is an important feature of the school of correction plan for wayward girls, advocated by opponents of enforced legislative restraint, which seems to be out of harmony with the general tone of their special pleading. It is the element of *enforced restraint* to which these girls are subjected by being placed and detained in these institutions. Now, if it be right to place wayward girls just starting on a downward career under reformative restraint, it is also right to place *abandoned* girls and women under conditions of sanitary and moralizing restraint. In regard to the rescue of Magdalens in another city, Prof. Andrews says, that of the women who came voluntarily, more than half were permanently reformed; where sent against their will, after being released, some returned voluntarily, and became permanently reformed. The Magdalen Homes in Philadelphia fail to prevent the spread of venereal poison, from their system of exclusion. If a woman is found to be "diseased," she is sent away. In the language of Judge Allison "they deny their benefits to those less fortunate." It is probable that the moral force of legalized control of the social evil might enhance the desirability and usefulness of these asylums for erring women, and promote voluntary applications by many who now pass them with contempt. Any legislative acts that would deter girls and women from entering upon lives of shame must secure to themselves, and to humanity unbounded benefits.

If a case of non-venereal contagion occur in Philadelphia, the physician is required by law, under a liability of heavy fine, to report that case to the Board of Health; and, if considered necessary, an inspection of condition and situation is immediately made by an attachè of said Board, for the purpose of adopting measures for preventing the spread of the contagion. This precaution being necessary for the protection of society against fluctuating causes of contagion, why should not the constant dangers from venereal infection be brought under equally stringent control? Under existing statute, police officers are nearly powerless as conservators of the public safety; they can occasionally raid a house if complained against as "disorderly;" arrest the inmates; have the "mistress" bound over to keep the peace; some sympathizer can go her bail; and in a month she is in full sail in another quarter. If their "boarders" are not actually caught "soliciting"—overheard or seen improperly accosting men, and sometimes boys, in the immediate proximity of the policeman—these women may traverse the streets from sunset till midnight, cruising for customers, with complete safety from interference by the police. Persons who have had unfortunate association with them will not enter formal complaint against them except sometimes, where the victim has been robbed of watch or money, he hopes to recover by legal process. General society naturally evades the disagreeable task of ferreting them out. Unless the evil be made the subject of special legislation, by which it shall become the duty of conscientious officials and their coöperating agents to labor vigilantly and unremittingly for the suppression of the evils under consideration, no abatement need be anticipated. Many opponents of legalized interference with the business of prostitution insist that a medical examination of infected women, and public women, constantly liable to become infected with contagion, "*is defiling the cradle of humanity*;" but which is it that defiles this sacred "cradle?" The infection that makes it a source of poisonous pollution? or the examination that is to cleanse and purify? We hold that innocence, modesty, purity are sacred. We would guard them with religious care. But we would not confound them with the capriciousness of a public prostitute, who "hates" to have it discovered that she is a source of contagion. There is abundant evidence that when ever a confirmed strumpet thus simulates the air of injured virtue, it is but part of her practice, in which she is so thoroughly schooled. Unless compelled to submit to medical examination by their "boarding-house mistresses," this class, under the existing condition of prostitution, oppose and resist the examination that is to reveal their actual condition. In the case of the confirmed prostitute there is a predominating indifference to results. And unless there is a regulating arm that impels, they are never the subjects of conservative regulation.

Are opponents of intelligent, regulated inspection aware that the value and need of inspection is so well understood by some boarding mistresses, that, without any adequate qualification, they themselves examine the "girls" in their houses whom they suspect are diseased? So watchful are they over the pecuniary interests of the house, they do not run the risk of calling in

a physician to treat their diseased women, lest men, seeing a doctor attending, should suspect their danger and avoid the house. In order to maintain as large a patronage by men as possible, it is a fixed, abiding policy of women engaged in the pernicious business of prostitution, to prevent by every possible plan suspicions of existing danger.

We deprecate the self-desecration of womanhood involved in promiscuous sexual abandonment. We deprecate the causes that too often carry women of deficient discretion into the sphere of ill-fame. But in honor of the good and true women, to whom the world must look for sons and daughters, we must also confess that though "God has given to every woman the natural right to the sovereignty over her own person," nevertheless, if a woman surrenders herself to public prostitution, she forfeits her rights to sanctity, and is not entitled to unrestrained privilege to spread moral and physical infection by the "sovereignty" of her person.

Hospital Reports.

BELLEVUE HOSPITAL MEDICAL COLLEGE, NEW YORK.

A CLINIC BY AUSTIN FLINT, M. D.,
Professor of Principles and Practice of Medicine.

Emphysema.

This patient's name is Thomas S., he is sixty three years of age; pursues the business of peddling; was admitted on the eighth of this month. Please note this fact, gentlemen, that he has had more or less cough since his childhood. About eighteen months ago he became much worse. Suffering for want of breath, and this difficulty has been increasing steadily, and now he is unable to take any kind of active exercise without suffering from marked dyspnœa. The cough has been violent and paroxysmal. The paroxysms of coughing are accompanied with congestion of the face, and frothy sputa. The appetite is poor, and he has lost a good deal in weight. He complains, then, of cough, dyspnœa, loss of appetite, and impairment of strength.

Well, here, gentlemen, are good data for forming a presumptive opinion, but, if I ever lead you to do that, it is simply for a kind of discipline, for it is not a good plan to pursue in the examination of patients. We should try to avoid forming any definite opinion in diagnosis until we get all the facts. But here the history is quite a characteristic one, and the diagnosis will not be difficult.

This is a case I have been looking for for some time. It is the first we have had this session. I call your attention to the appearance of the chest. Writers are accustomed to speak of the barrel-shaped chest. It is not a bad simile. You see at once what you have here, a projection of the anterior wall of the chest, which is not natural. We do not find it unless we meet with a case where pulmonary emphysema began early in life and continued.

I call your attention next to the manner of breathing. In the first place, you see that, while lying perfectly quiet, as he is now, there is labor in breathing. He does not breathe easily, comfortably. Then observe that the upper part of the chest remains quiet while he breathes, that what movement does take place takes place at the lower part of the chest and at the epigastrium. During inspiration the lower part of the chest is drawn inward, just the reverse of what should occur. You see, when he takes a deep inspiration, the chest wall is lifted up like the shell of a tortoise, as if it were one solid bony case, and the epigastrum is drawn in. These are characteristic visible signs of emphysema, with sufficient dilatation of the lungs to cause this deformity of the chest. Should he have a fit of coughing before leaving the amphitheatre, you will see that it is spasmodic, as stated in the history; one cough succeeding another too rapidly for full inspiration, so that the patient gets out of breath and suffers very much from dyspnœa, the face and neck becoming congested and swollen, and the prolabia not unfrequently becoming cyanosed. With the spasmodic paroxysms of coughing there is usually expectoration, which contains perhaps some mucus, but a good deal of serosity. This serosity contains air bubbles in abundance, so that it looks like soap-suds.

I will not dwell long on the signs obtained by percussion and auscultation, as we have considered them before. They can be obtained in cases where there is not as much deformity of the chest as exists here. You observe that his chest is dilated beyond the utmost limits of forced inspiration in health. That is an important fact as bearing on the mechanism of emphysema. It shows conclusively that in the production of emphysema, such as we have here, something more is required than the collapse of certain pulmonary lobules and the expansion of others to fill the space.

Pulmonary resonance is increased, vesiculo-tympanitic and higher in pitch, especially as we ascend. The tympanitic quality and pitch is a little more marked on the left side than on the right, showing that here is an illustration of the rule that the upper lobe of the left lungs becomes emphysematous to a greater degree than that of the right. A reason for this may be that in violent fits of coughing and strains upon the lungs from his labor, the left upper lobe is more compressed than the right in violent inspiratory acts, because the liver prevents so great force being exerted upon the right lobe by the inward movement at the lower part of the chest and at the epigastrium. There is feeble respiratory murmur on both sides, more marked on the left side, because there there is more emphysema. There is short inspiration and prolonged expiration, but this prolonged expiratory sound has the same quality and pitch as the expiratory sound of health. Please bear in mind, viz: that although there is prolonged expiration it does not differ in pitch and quality from that in health, and do not examine for bronchial or broncho-vesicular expiration, for where these exist there is a rise in pitch, and a tubular quality.

The heart is pushed below its normal position, on account of the increased volume of the lung at the left upper lobe.

Now, this patient has no œdema. When œdema occurs it is dependent upon the effect of the emphysema on the right side of the heart. Emphysema involves an obstacle in the pulmonary circulation; that obstacle leads to an overfilling of the right side of the heart; that leads to increased power of the right ventricle; that leads to hypertrophic enlargement of the right side; and that leads ultimately to dilatation. Then we have an obstacle affecting the systemic circulation, and the result of that is general dropsy, together with more or less cyanosis. Now, you see this patient's lips are of pretty good color, just a little dark, and he has no œdema. The history does not show that he has had asthma. It is a case of chronic bronchitis occurring early in life, persisting, and leading to emphysema which, in the great number of years that have expired, has reached the degree which you see here. If there were enough chronic bronchitis to lead to phthisis, in a case like this, it is difficult to answer why we do not have it, and yet we know that this condition antagonizes the occurrence of phthisis.

What is to be done in a case like this? What is the objective point of treatment? It is to diminish, if we can, the bronchitis; to improve his condition as respects that, as far as we can. This distention of the chest will never disappear; but if we can relieve the bronchitis, it will not be likely to increase, and it may diminish somewhat, perhaps, even considerably. We should, therefore, aside from certain palliative measures, employ remedies which are found by experience to exert a sanitary effect upon chronic bronchitis, as the iodide of potassium, the chloride of ammonium, the chloride of potassium, the balsamic remedies. It is possible a good deal of good may be effected by their use in this case.

Typhoid Fever.

Case 2.—The next case, gentlemen, is one of a good deal of interest. I hardly know how to manage it, because the record is so long. You will see why it is so, and why it is very desirable it should be so. The temperature has been taken hourly for several days, and it makes a great many details. But I will try to get the meat out of the nut. It is a case of typhoid fever which has been treated pretty vigorously with the wet sheet, and then with quinia.

The patient is a girl about fifteen years of age, and is now getting along very satisfactorily. She still presents some, but not as much as she did, of that dull, indifferent expression, which is strikingly marked in most cases of this fever.

Now, let us see what we can get out of the history, so far as regards the practical points. Bridget C., fifteen years of age, admitted on the fifth instant. A week before her admission she was taken ill. The first thing of which she complained was headache, and that was followed by a feeling of lassitude, loss of appetite, and vague pains.

On her admission, which was a week afterward, she complained of having pains all over, a general feeling of malaise, headache, weariness, loss of appetite, etc. She had no epistaxis or diarrhœa—an absence of two symptoms which are very frequently present, and which, therefore, possess diagnostic significance. But we have no difficulty in reaching the diagnosis in the absence of these. The face was flushed, the eyes suffused, the tongue coated white, red lips, sordes on the teeth, some pharyngitis. The patient's mother was admitted on the same day, in about the same condition.

On physical examination, there was right iliac tenderness and gurgling, but no tympanitis. Three rose-colored lenticular spots were found on the abdomen. Subsequently some more were found. The spleen was slightly enlarged.

Now we come to the temperature and treatment. On the 5th, which was the day of her admission, the temperature at 11 o'clock was 101.5°. She was ordered whisky, half an ounce every three hours, and a diet of milk and eggs. At 4 o'clock the temperature was 104.5°; at 4.45, 104.5°. Now she was placed in a wet sheet. By the wet sheet we mean enveloping the whole body in a sheet saturated with water at about a temperature of 80° F., first placing under the patient an India-rubber cloth, so as to protect the bed. Then the wet sheet, in which the patient is wrapped up, is sprinkled about every fifteen minutes with water, of about the same temperature. Now, that is applied as a substitute for the cold bath, and I believe it to be such. You see at once it is more easily managed, and is much more convenient and comfortable for the patient. Taking him out of bed and putting him into a bath in the condition in which he is, is very apt to excite a good deal of mental and nervous disturbance. Moreover, it is attended with a good deal of trouble. In this way, however, the wet sheet can be continued as long as desirable without any trouble.

At 4.45 the temperature was 104.5°, and the patient was put in the wet sheet. At 5 the temperature was 104°: at 6, 104.25°; at 7, 103.75°; at 8, 104.75°; at 9, 101.75°; and then the sheet was removed. She was in it from 4.45 to 9, the temperature having been reduced from 104.5° to 101.75°. At 11 P.M. the temperature had risen to 105.5° in the axilla. The difference between the temperature of the mouth and the axilla is from a half to a whole degree. She was again placed in the wet sheet. At 12, midnight, the temperature was 104.5°; at 1 A.M., 104.75°; at 5, 104°: at 6, 104.75°; and so on until two o'clock, the wet sheet being continued steadily until that time of the afternoon of the next day, when the temperature had fallen to 103.5°. This mode of employing water can be continued much longer than the bath. At 3 o'clock the temperature again rose to 105.25°. It was then thought best to give her a full dose of quinine as an antipyretic. She was given twenty grains at 3. At 4 P. M. the temperature was 105.75°, and she was again placed in the wet sheet. The sheet was removed at midnight, the temperature having fallen only to 104°. So both measures, the quinine and the wet sheet, failed to reduce her temperature much. She was delirous, and this, you know, belongs to the disease. From 1 o'clock A.M. to 8, on the 7th, the temperature varied from 104° to 106°. The tongue was uniformly red and very dry, and she fretted a good deal about being

placed in the wet sheet. She took nourishment well, and her general condition seemed to be good. During this entire day the wet sheet was not used, but at 1 P.M. she got ten grains of quinia. She had this day a loose, yellow colored stool, such as belongs to the disease. The temperature kept up all day; at 6 P.M. it was 104.25°. The pulse was only 84, illustrating what we see often enough, that although not infrequently the temperature and pulse correspond, often there is a marked discrepancy. Here was a pulse of only 84 while the temperature was varying from 104.5° to 106°. Nothing was done except to give the dose of quinia, having been a little discouraged in not getting the effect hoped for from the wet sheet. One reason why it was not applied was, that the patient shrunk from it; was uncomfortable; fretted; cried. As a substitute for it, it was ordered at 6 o'clock in the evening that the body be sponged. Now, we can effect a good deal by sponging the body, if it only be continued and thoroughly carried out, either having the whole body exposed and sponged, or sponging a portion of the body at a time, doing so not for a few minutes only, but for many hours, perhaps. Well, this was commenced at six o'clock, sponging first one extremity, then the other, then the body, and so on, with tepid water. Twenty grains of quinia were ordered to be given every six hours, the first being given at 6 o'clock, the temperature then being 104°. At 9, it was 103.5°; at 10, 103.25°; and so it went until 2 A.M., of the 8th, when it rose to 104°, and continued so until 7 P.M. when it fell to 103.75°; but at 12 M. she had received twenty grains of quinia, and the same amount at 6 P.M. At 8 P.M. the temperature was 103°; at 9, 104°; at 10, 101.75°. The patient was annoyed by the sponging. She had a slight cough, but no expectoration; the pulse was 96, and rather feeble; the carbonate of ammonia was now given, five grains every three hours. The sponging was continued pretty constantly for a couple of days now, although the temperature did not go up very high. On the 9th it went up as high as 104°, but only once, and continued so only an hour. The rest of the time it varied from 100° to 103°, being kept down, as we have reason to think, by the sponging. Now we come to the 11th. This day, at 1 A.M., the temperature was 100°; at 9 A.M., 100.75° in the axilla; at 10, 100°; at 11, 100.° Now, you see, she has almost a normal temperature. There is no diarrhœa, there is no tympanitis, the mental condition is improved, and she is apparently approaching convalescence.

She had epistaxis after coming into the hospital. Interesting points in the case are, the occurrence of the fever without epistaxis or diarrhœa during the forming stage, and with no marked diarrhœa during the progress of the disease; still, some of the stools have been liquid, and of the characteristic yellow color; then a higher temperature and not a proportionate increase in frequency of the pulse. Had we formed an idea of the height of the fever in this case by the pulse we should have made a mistake. We will see yet whether she goes on to perfect convalescence and recovery.

(Later. The patient completely recovered.)

Bright's Disease.

CASE 3.—Our next patient's name is M., 19 years of age, a seamstress, admitted the 27th ult. She began to cough about five months ago. Two months subsequently, while walking along the street, she slipped and fell, striking on her left side, and immediately began to raise blood. The quantity was small. For two weeks after the fall her sputa was stained with blood. She did not experience any embarrassment of respiration after the fall, but had pain and soreness in the right side. Since the cough began she has had occasional night sweats. She has lost in weight, her appetite is impaired. She entered the hospital complaining of cough, diminished appetite and strength, and night sweats. The physical examination showed prolonged and high-pitched expiration, the voice sounds more distinctly transmitted at the left apex, and, on physical examination yesterday, I found vocal resonance distinctly increased at the left summit, and râles present there occasionally, so that it appears to be clear enough that this patient has a small phthisical affection situated at the upper part of the left lobe.

But I have brought the patient before you for another reason. She was given cod-liver oil and hydrocyanic acid. On the 30th ult. it was noted that she had night sweats, and that the hands and feet showed some œdema—not much. On the 3d inst. the patient was seized with a chill, followed by pain in the left side near the nipple. She had cough and orthopnœa; was suddenly seized with such difficulty of breathing that she was obliged to sit up in bed. The next day she had orthopnœa and pain in the side, and a cough, with a pinkish watery expectoration. The temperature was 101°, the pulse 120, the respirations 24. Examination showed œdema of the hands and lower extremity, and over both lungs posteriorly diminished fremitus, dullness on percussion, diminished vocal murmur, subcrepitant râles—a group of signs which clearly evinced pulmonary œdema.

What pathological connection should we suspect under those circumstances? There was no disease of the heart. We should, therefore, at once direct our attention to the kidneys, and, on examining the urine, it was found to be pale, clear, acid, of a specific gravity of 1.017, to contain traces of albumen, and small hyaline, fatty, and granular casts.

You can see, gentlemen, no appreciable œdema under her eyes to-day, and there is none of the feet, and the œdema of the lung has completely past away. Indeed, that more or less of it, passed away the day after its appearance. You observe, she presents no particularly morbid aspect. The point is this, gentlemen: this patient has disease of the kidneys (she has phthisis too), and yet, till œdema of the lungs and a little of the limbs and face was noticed, there was nothing to suggest the idea that she was suffering from renal disease.

Now, let us see what further facts can be obtained with regard to the urine. On the 4th inst. the amount of urine passed in the twenty-four hours was seventy-eight ounces; on the 5th, seventy-nine; on the 6th, forty; on the 7th,

thirty-eight; on the 8th, thirty-six; on the 9th, thirty-six; on the 10th, twelve ounces. Some perhaps was lost. The temperature has been normal several days. She complains of pain in the left side. She was placed upon a diuretic.

From this history what form of chronic disease of the kidney has she? I do not suppose any of you will hesitate much in answering that question. "The cirrhotic or contracted kidney." Yes, of the different forms of chronic disease of the kidneys, so far as we can judge from the symptoms, she has the contracted kidney. This is shown by the absence of œdema, except in a small degree, a very small quantity of albumen, the presence of casts, urine of rather low specific gravity and large in quantity, and the occurrence of pulmonary œdema.

The practical lesson that I would impress by this case is, that we should always make a thorough examination of the urine whenever we investigate it with reference to renal disease. Suppose we had examined the urine in this case only with reference to albumen, we would have said, here is only a small trace of albumen, which perhaps is due to some transient cause. This shows the importance of a microscopical examination. And here we have pulmonary œdema, whether it depend upon uræmia or not, we are not prepared to say; but in a case like this it is important to form an idea as to the amount of urea being eliminated, and it should be examined with reference to that fact. I see patients in consultation, and often, on asking if the urine has been examined, I am told it has been, that it contains albumen, but that is about all they know about it; sometimes they don't even examine for the specific gravity. The specific gravity and the quantity are the points. These give us the data by which we can judge whether the urea is being eliminated in sufficient quantity to relieve the patient from the danger of uræmia. I have not time to dwell upon this subject longer to-day, but you will recall the minor manifestation of uræmia as well as the graver. In this case the indications are to eliminate the urine in larger quantity than it is being passed at present, and so guard against another attack of pulmonary œdema, and further manifestations of renal disease.

Pneumonia.

CASE 4.—This patient's name is Alexandra M., forty-five years of age, a domestic, a native of Canada, admitted on the 8th ult., having been ill two weeks. Her illness began with pain in the left side, with cough, no chill. On admission, she complained of cough, of dyspnœa, of pain in the left side, and of debility. The temperature was 101 in the morning, and 100 in the evening. On physical examination, there was found increased vocal fremitus, dullness, bronchial breathing, bronchophony, sub-crepitant and crepitant rales over the lower lobe of the left lung. Well, of course, we would say it was a case of pneumonia. The general condition of the patient was pretty good, and we did not have a chill in the previous history, but still we have the signs of consolidation affecting the lower lobe, and some of the members of the clinical class will recollect that this is the patient who gave us a good illustration of bronchial respiration and bronchophony, bronchophonic whisper. Well, her general condition was good, and it remained good, and she felt well enough to sit up. She was allowed to sit up, but still there were those signs. She came in on the 8th ult. There being very little increase of temperature, and the signs mentioned continued two or three weeks, and I illustrated to different sections of the clinical class those physical signs by this patient. Well, we began to say then, this cannot be pneumonia; it must be fibroid phthisis. And we rather settled down on that conclusion. Last Friday, a week ago to day, I took a section around to illustrate those physical signs in this patient, and to my surprise they had disappeared. She had not been examined for several days, and the signs of consolidation had in the meantime disappeared.

Now, what is the lesson? It is this. That in some cases of pneumonia (for no doubt it was a case of pneumonia) the consolidation of the lung continues, and leads us to think there is phthisis, but finally resolution takes place. So you will meet with cases where you will think there is pneumonia, and you will find several weeks elapse before resolution takes place. But resolution will at length take place. I shall never forget a patient who came into the hospital some years ago with consolidation at the upper lobe of one lung, and who was supposed to have phthisis. He remained in the hospital for some time, lying in his bed, attracting little attention, as he was supposed to have phthisis, until one day I was struck with the fact that he was looking better—very much better than one could expect of a patient with phthisis confined to bed, and on examining him, I found that consolidation had greatly diminished, that resolution was taking place, and that the patient had not phthisis, but pneumonia. He recovered, and shortly afterward enlisted and went into the army.

Hepatic Colic.

CASE 5.—As we are lecturing on hepatic colic in the didactic course I will present you a patient with that affection, but we have not time to make extended remarks upon it. His name is Daniel, colored, a waiter, and he was admitted on the 8th inst. No previous history was obtained except that he had had three attacks similar to the one from which he is now suffering. The conjunctivæ show a moderate amount of jaundice. In the three attacks previous to this the prominent symptoms were severe pain in the right hypochondrium, radiating to the chest and right shoulder, tenderness over the liver, vomiting, and icterus or jaundice. Those are the salient points of the past attacks, and also of the one which he has had since he came into the hospital. The pain was paroxysmal, the paroxysms lasting an hour or more, as a rule, and occurring several times in the course of a week. The present attack began on the 8th inst., and was characterized by pain over the liver, which radiated into the thorax and into the right shoulder, tenderness in the right hypochondrium, icterus, constipation, anorexia, emesis, and some febrile movement. Several paroxysms have occurred

since his admission into the hospital, and during the intervals the right hypochondrium has been the seat of continuous dull pain and tenderness.

EDITORIAL DEPARTMENT.

PERISCOPE.

Febrifuges in Malarial Fever.

In a medical report on the health of the 3d Indian Regiment of Native Infantry during 1879, says the *British Medical Journal*, Surgeon T. E. Worgan gives some interesting observations on the results of his treatment of malarial fevers with various febrifuges, the large amount of that disease among the troops offering a favorable opportunity for testing the value of drugs. Quinine being a costly drug, few cases were treated primarily by it, and only such cases as were of formidable character; the fact that recurrences took place is not, therefore, to be wondered at. Carbolic acid, a drug which does not appear to have attracted great attention as an antiperiodic and antipyretic, yielded most encouraging results. That these results would have been still better, Surgeon Worgan is convinced, had he employed the drug from the first in the manner which experience subsequently pointed out. The doses, to be effectual, must be full and frequent; ten minims of the carbolic crystals to the ounce of water, and one and a half ounce of this mixture repeated six times during the day. No bad results were ever noticed under this treatment; no vomiting or dyspepsia, though slight relaxation of the bowels was occasionally experienced. If the smallest fullness or hardness of the pulse were noticeable, an ounce of this mixture, combined with a diaphoretic, was administered a similar number of times, the diaphoresis compelling absorption by diminishing the tension of the vessels. This plan was pursued whether the patient was in the paroxysm or entirely free from it, if the pulse seemed to indicate its advisability. Eighty-five injections of quinine were performed, but seldom as a primary treatment. The doses varied from ten to forty minims, more than twelve minims never being injected in one place. Three cases of abscess occurred, and chronic localized thickening of the cellular tissue invariably resulted. In one case, four grains in one spot produced a slough within four hours. Since these cases, even though assisted by the internal administration of "alkaloids," show only a proportion of about 33 per cent. of absolute success, and considering the pain and disagreeable results which may follow, Dr. Worgan does not think this measure will hold a very prominent position as a treatment, except in those severe forms of malarial fever where the stomach resents quinine, and rectal administration is objectionable. The cinchona alkaloids answered well in the milder forms of fever. Much of their failure is due to their nauseant properties, the dose being frequently vomited up five minutes after administration. That this property is less marked when administered as a draught than as any pill, seems certain. Another peculiarity in their action appears to depend on exposure to air, and their age. As each new tin waned, the dose had to be increased, to be again diminished on the opening of a fresh tin. Arsenic was frequently used as secondary to other drugs, and as such the results were satisfactory; seven drops well diluted did not appear to cause any inconvenience, though given when food could not have been present on the stomach. Salicine was administered in a few cases in which pyrexia was a marked symptom, with the effect of reducing the temperature, but exerting no appreciable influence over the recurrences.

A New Method of Treating Rectal Fistulæ.

Mr. H. A. Reeves writes to the *British Medical Journal*:—

About three months ago I tried a plan of operating in a case of fistula in ano, which I believe to be novel—if there be anything new—and as the result was very satisfactory and rapid, I venture to draw attention to it, although I have only one case, so far, to record. The fistula was about two and a half inches long, and was divided in the usual way; then all pseudo-membranous tissues and granulations were scraped away with a sharp scoop, and the ordinary narrow blunt-pointed bistoury buried for half its depth at the fibre of the fistula. Both surfaces of the wound being vivified and hemorrhage having ceased, three deep silver sutures were passed, entering the skin about a quarter of an inch from the edge of the wound, and, passing well beneath the floor of the fistula, were brought out at the same distance on the other side of the wound. The upper stitch ran through the coats of the rectum into the surrounding tissue. These stitches were removed a week after the operation (but might have been removed sooner) when the wound was soundly healed. The patient has been perfectly well since. I intend to give this plan an extensive trial, as it promises to considerably expedite the cure of suitable cases of rectal fistulæ, and to do away with the painful dressings which have to be resorted to in the common mode of treating such affections. The bowels should be well open by a purgative and enema before operating, and must be kept confined for about four days after the operation. All loose folds of skin about the fistulous track must be removed. I shall be glad if other surgeons will try this plan.

Amyl Nitrite as a Cardiac Stimulant.

Dr. Edward T. Reichert, of Newark, N. J., contributes to the New York *Medical Journal*, for July, 1881, an article in which, from a critical consideration of the more important of the literature bearing upon the subject, as well as

from experimental data of his own, he argues that nitrite of amyl acts as a direct stimulant upon the heart. The author admits that the increased action of the heart under the influence of the drug may be due, to a certain extent, to its depressant effect upon the pneumogastrics, as shown by Filenhe, Mayer, Friedrich, Dugau, and Brunton; but he thinks that the deductions of the first three of these observers must be accepted with allowance, because of the very indirect way in which they sought to decide this action. Dugau, whose view closely coincides with Pick's (that there is a compensatory relation between the action of the heart and the condition of the vaso-motor system, so that when the vascular channels are open the heart will naturally beat faster to overcome the excessive drainage, and *vice versa*), was misled by not discriminating between the action of the drug on the vaso-motor system and its effect on the heart. With the action of the vaso-motor system practically abolished (as was accomplished in Brunton's experiments, in three of which he compressed the aorta below the diaphragm and divided the spinal cord, the disturbing influence of respiration and struggles on the animal's part being done away with by means of curare), any change in the arterial tension must be the result of direct cardiac action; and in all of Brunton's experiments there was a primary and marked rise of pressure, which equaled as much as a fifth of the normal. The nitrites affect the blood pressure in two ways—by stimulating the heart directly, and by depressing the vaso-motor system, especially the centres. They are direct stimulants of the heart, increasing the frequency of its action and the amount of work done in a given time. Clinical evidence supports this view; for, were it otherwise, the action of amyl in chloroform poisoning, in collapse and syncope, and in heart disease accompanied by paroxysms of distress due to a weakening of its action, would either be *nil*, or else it would even aggravate the symptoms.

Ophthalmia Neonatorum.

In the New York *Medical Journal*, Dr. Bull writes of the ophthalmia of newborn infants, dividing the affection into (1) purulent, (2) croupous or membranous, and (3) diphtheritic conjunctivitis. Recognizing the purulent form of the disease as due in the great majority of instances to inoculation with the muco purulent or purulent discharge from the mother's vagina during parturition, the practical question is one of prophylaxis: and to this end the care of the disease must be placed in the hands of the obstetrician and those of the nurse, and on them must rest the responsibility of the result. The prophylactic measures recommended by the writer are as follows: In all cases of vaginal discharge in parturient women, whether specific or not, the vagina should be carefully cleansed and disinfected repeatedly before parturition begins. As soon as the child is born the external surface and edges of the eyelids should be carefully cleansed with a one or two per cent. solution of carbolic acid, and then the conjunctival cul-de-sac washed out with some of the same solution, or with a saturated solution of boracic acid. This must be done by the attending physician, or by a skilled nurse under his supervision. The eyes of all newborn children should be carefully watched for the first week or ten days, and whenever any signs of an ordinary catarrhal conjunctivitis appear, the conjunctiva should be thoroughly brushed over with a solution of nitrate of silver, from two to five grains to the ounce of water. If the conjunctivitis has become purulent, and the case is one of real ophthalmia neonatorum, the child should, if possible, be isolated from all healthy infants, and have its own bath-tub. If this is not possible the diseased infant should be bathed *last*, and no sponges should be used, but only cloths, which can afterward be destroyed. If one eye only is affected, do not apply the hermetically-sealed bandage to the sound eye, but envelop the arms or hands of the baby, so as to prevent the secretion from being carried to the fellow-eye, and lay the child upon the side corresponding to the diseased eye.

The most important feature in the treatment is enforced cleanliness. This requires constant attention and the frequent use of some soft cloths and plenty of water. The use of cold cloths, dipped in cold water or even iced water, and laid on the eyelids, must be regulated by the amount of swelling of the lids and heat of the parts. As soon as the lids can be everted, the proper treatment is a thorough application of nitrate of silver to the conjunctiva of the lid and retrotarsal fold, daily, and sometimes twice a day. If this is thoroughly done, a five-grain solution will in most cases suffice; but where there are profuse secretion and considerable swelling of the conjunctiva, a ten-grain solution becomes necessary. When, owing to marked hypertrophy of the papillary structure of the conjunctiva, a stronger caustic becomes necessary, it is better to discard solutions, and employ the lapis mitigatus (one part nitrate of silver to two parts of nitrate potassium), and neutralize its effect by a subsequent washing with a solution of common salt. It is well to employ a one grain solution of sulphate of atropia in a saturated solution of boracic acid in every case of purulent ophthalmia, as the great danger in this disease is purulent infiltration and perforation of the cornea. Should this infiltration occur at the centre of the cornea, the atropia should be instilled frequently, for, if perforation occurs, the dilatation of the pupil will prevent a large prolapse of the iris through the perforation. If the infiltration of the cornea, on the contrary, be at or near the margin, it is better to employ a two-grain solution of the sulphate of eserine, as thus an extensive prolapse of the iris may be prevented if the ulcer perforate. In all cases the cleansing and washing of the lids and conjunctiva should be done with a saturated solution of boracic acid, and the atropine and eserine should be dissolved in the same.

Chloral in the Treatment of Asthma.

Dr. G. L. Mackelcan, of Hamilton, Ont., in a paper read before the Ontario Medical Association, and published in the *Canada Lancet*, Aug. 1, 1881, says:—

Taking for a theoretical basis the idea that the attacks originate from some peripheral disturb-

ance of some branch or branches of the pneumogastric nerve, which is communicated to the nerve centre, and that the attack could be arrested by paralyzing the nerve centre, as it were, the paroxysm could be cut short, and if cut short, the habit would ultimately be broken up, I thought that chloral hydrate would have the desired effect. The first case that came under treatment was an old standing one of thirty years, of the cardiac variety. This old gentleman had been subject in the first years of the disease to violent periodical paroxysms, but latterly it had become almost continuous, so much so, indeed, that he had not lain down in bed for some months. The remedy was given in ʒj doses at first, as I presume it was by most of us, when it came into use. The dose was then gradually decreased until five grains, three times a day, were taken. The effect of the treatment was such that in a very short time he was greatly relieved of his asthma, and at the end of six months he was entirely free from it. He lived for ten years afterwards and never was troubled with it again, although living in the same neighborhood. He told me that he gave my prescription to others suffering from the same disease in his locality, and that it entirely relieved them.

The next cases treated were four members of the same family. I had treated the father for some time on the old plan that I had been accustomed to, but with only temporary relief. As soon as he began the new treatment with chloral hydrate he began to improve, and after three months he had no return of the disease. Some time afterwards the mother came for treatment for the same disease, and in her case I believe she never had a subsequent attack. About two years after the son and daughter came to be treated for the disease, and were well enough to discontinue the remedy, one in three and the other in six months.

The history of five more cases is given. Two of these were completely cured, while the remaining three were benefited. In conclusion the Doctor says, that with regard to the disease in young children, when the diagnosis is made out (which is not always easy), the effect of the treatment has been very remarkable. Four cases from three to ten years of age, treated by from six to twelve grains, have been completely relieved from any further attacks.

Physical and Therapeutical Action of Hyoscyamia.

Dr. G. C. Seguin, in an article on hyoscyamia as a depresso-motor, published in the *Archives of Medicine* for June, 1881, says that the experience of all observers with reference to the physiological and therapeutic effects of hyoscyamia, may be summed up as follows:—

1. It acts as a mydriatic, but whether more fully or longer than atropia remains to be settled.

2. When given in small doses it reduces the cardiac pulsations, increases arterial tension, and checks the loss of body heat. It also produces hallucinations and delirium. It may cause a fall of axillary temperature, and occasionally a rash.

3. In large doses it immediately increases the pulse-rate, produces a seeming paralysis or motor debility, and sleep.

4. Hyoscyamia is indicated in mania, restlessness, delusions of persecution, dementia with agitation and destructiveness, epileptic mania, insomnia, rapid action of the heart, epilepsy, (?) status epilepticus, chorea, paralysis agitans, hysterical spasms, tremor, neuralgia, rapid pulse, etc.

5. In mania and allied states it produces sleep as certainly, or even more certainly, than chloral, without any evil after effect, unless it be occasional gastric disorder.

6. In cases of delusions of persecution or of suspicion it has produced a positive cure.

7. In paralysis agitans it achieves what no other remedy ever has done, viz., arrested the movements for four hours or more without insensibility.

8. In the status epilepticus it shortens the attack materially; perhaps better than any other single remedy.

9. It is a diuretic of no mean power.

10. The curative power of hyoscyamia does not appear to be great. In some cases of insanity its use has been followed by recovery, but, as a rule, we must look upon it as a good narcotic, often speedier, more complete, and less objectionable than morphia and chloral hydrate.

11. In spasmodic diseases, so far, we can speak of hyoscyamia only as an ameliorating agent, or as a palliative.

I would suggest, lastly, that in cases of very acute chorea, where death is threatened by incessant motion, hyoscyamia, given hypodermically, may prove of benefit by securing muscular relaxation with certainty, thus allowing the patient to rest, and giving time for other remedies to act.

Tests for Ergot.

On this subject, Dr. Etienne Evetsky says, in an article on the physiological and therapeutical action of ergot, published in the New York *Medical Journal and Obstetrical Review* for August, 1881:—

Although, according to Bonjean, ergot loses its poisonous properties to a considerable extent if taken in bread, still this is the only means of poisoning, except when taken for medicinal purposes. The peculiar color and odor of flour and bread (according to Orfila, the latter has dark, violet-colored spots) are usually sufficient to reveal its presence. But, if its amount is not great, chemical manipulations will be required for its detection. The test of Winkler is old and unreliable, because, according to Dragendorff, caustic potassa generates trimethylamine with other substances also. It consists in mixing the suspected substance with the solution of KHO; this is heated, and a peculiar penetrating odor of herring is generated, indicating that ergot is present in a larger amount than 1.5 per cent. The test of Zinin, improved by Jacobi, is more reliable and delicate. The flour is repeatedly boiled with alcohol; it is filtered, and a little cold alcohol, previously acidulated with sulphuric acid, is added. The presence of ergot will be demonstrated by the appearance in a few minutes on the upper layer of fluid of a beautiful rose color, by the intensity of which we may judge with a certain degree of accuracy of the quantity of ergot. According to the report of the commission ap-

pointed by the Russian government in 1864, flour containing but one per cent. of ergot produces very dangerous symptoms, and the amount of it is frequently much greater. In the epidemic reported by Swjatlowsky, in *Vratsch*, Nos. 10 and 11, 1880, the flour contained seven per cent. of ergot.

Reviews and Book Notices.

NOTES ON CURRENT MEDICAL LITERATURE.

——"The Abortive Treatment of Pneumonia," is the subject of a paper read before the State Medical Association of Mississippi, by Dr. W. Y. Gadbury, of Yazoo City.

——Dr. L. Duncan Bulkley sends us, in a reprint from the *Archives of Dermatology*, vol. vii, No. 2, April, 1881, clinical illustrations of *favus* and its treatment by a new method of depilation.

——We have just received a pamphlet from Dr. C. J. Lundy, of Detroit, on "Tubercular Laryngitis and Laryngeal Phthisis," which was read before the Ann Arbor Medical and Surgical Society.

——A reprint from the Philadelphia *Medical Times*, June 4th, 1881, contains a paper on "Ether Deaths," by Dr. John B. Roberts, being a personal experience of four cases of death from anæsthetics.

——We have received, in pamphlet form, a very learned and quite lengthy treatise, entitled, "Observations with the Hæmacytometer upon the Globular Composition of the Blood and Milk," being the Cartwright prize essay, by Dr. Frederick P. Henry, of this city.

——From a large number of clinical observations, Dr. J. Edmondson Atkinson has been led to ask the question, "May Iodide of Potassium excite Bright's Disease?" The whole subject is discussed in a reprint from the *American Journal of Medical Sciences*, for July, 1881.

——Dr. Chas. A. Oliver, of this city, gives us the results of his studies on the "Comparative Action of Hydrobromate of Homatropine and of the Sulphate of Atropia, upon the Iris and Ciliary Muscles," in a paper published in the *American Journal of Medical Sciences*, for July, 1881, a reprint of which is now before us.

——Messrs. A. E. Wilde & Co., of Cincinnati, Ohio, have sent us the first four parts of their "Atlas of Gynæcology and Obstetrics," edited by Dr. A. Martin, Professor of Gynæcology at the University of Berlin. The work will appear in fifteen parts, each to contain four elegant plates and four pages of explanatory text. In all, the volume will contain 475 black and 37 colored illustrations, from the original designs of numerous European authorities. These are elegantly executed. The price is $1.00 per part, but no subscription will be received for less than the entire work.

BOOK NOTICES.

The Compend of Anatomy. For Use in the Dissecting Room and in Preparing for Examinations. By John B. Roberts, A.M., M.D., Lecturer on Anatomy and Operative Surgery in the Philadelphia School of Anatomy. Second Edition, Revised. Philadelphia: C. C. Roberts & Co., 1118 Arch Street, 1881. Cloth, 12mo, pp. 192. Price $1.25.

The rapid exhaustion of the first edition of this work during the brief period of only a few months, shows that it has proved a valuable aid to students of anatomy. In issuing a second edition the author has taken the opportunity of making such alterations and improvements as he has deemed advisable. A table of ossific centres has also been added to the chapter on bones. In other respects the book remains unchanged.

The Mother's Guide in the Management and Feeding of Infants. By John M. Keating, M.D., Lecturer on the Diseases of Children at the University of Pennsylvania, etc. Philadelphia: Henry C. Lea's Son & Co. 1881. Cloth, 12mo, pp. 118.

This book seems to be written expressly for the use of mothers among the well-to-do classes of society. The Doctor enters into the minutest details of the management of children, during the first three years of their existence, with great skill, and he shows such thorough familiarity with the subject as can only be acquired by years of careful observation. All through the work he insists on the avoidance of medicine except under the direction of the family physician, and in the few instances where he allows the mother to administer a few simple remedies, chiefly antacids, indications are so plainly given as not to be mistaken. In the case of convulsions, that carry off so many little ones in our cities during the hot summers, he lays down definite rules for what to do until the arrival of the physician, and these rules are so excellent that we feel sure they will be the means of saving many a life. The author has, in our opinion, struck the happy means of teaching the mother what is necessary for her to know and of withholding such knowledge as might be dangerous.

THE

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THE SUBSCRIPTION PLAN IN WORKS OF SCIENCE.

Every physician ought to make the purchase of a number of new books every year a part of his regular expenditures. It is only as a reading profession that ours can claim to be a learned one. The physician who does not systemetically read the best new books does not fulfill his duty to his patients, nor will he prove an honor to his calling.

He should, however, be on his guard against wasting his money, as it is very easy to do in making miscellaneous purchases, especially when, on the faith of "Announcements" and "Prospectuses," he puts his name down for a work not yet printed, and often not yet written. There are grave doubts whether the application of all the subscription book canvasser's arts and tricks to force the sale of long rows of medical books, huge cyclopædias and whole libraries to the medical men of this country has done the profession much good. The plan on which such works are sold is a thoroughly wrong one for scientific works. Unless the purchaser "goes it blind" and takes the whole lot—and this he must do, remember, on the principle of buying a pig in a poke, or as boys swap knives, "unsight, unseen,"—he cannot get any portion of the set, no single volume which he may want. It is perfectly apparent that this is simply a publisher's dodge to force the purchaser to buy what he otherwise would not buy and does not want; it is a "trick of the trade" to sell unsalable wares; and is utterly out of place in scientific literature, where the buyer is supposed to know just what his own needs are.

Another reason why publishers like this way of selling is that the victim—we mean the "subscriber"—has no redress if he once writes his signature in the "canvassing book," but must take the whole thing, no matter how greatly he is disappointed in it, no matter how urgently he desires to spend the money for other purposes. How many offices are cluttered up with that verbose and unmanageable mass of garrulity known as "Ziemssen's Cyclopedia"? We venture to say three-fourths of the subscribers to it would have been glad to have dropped their subscriptions if they could; but no, they had signed the bond and had to take whatever stuff was delivered. Now the whole work is substantially worthless, for a second edition has appeared in Germany, with so many modifications and additions that the first is obsolete. We here remark, that in Germany none of these large works, appearing in many volumes, at different times, are "sold exclusively by subscription;" you can at any time buy any one of the series, separately, at an ordinary price. The German profession are too wide awake to be caught as is ours; or else the book trade over there is conducted on principles of greater equity.

Again, these big books, these Cyclopædias and Systems and Libraries, are not at all what the sensible physician wants. They cost too much money at the start, and cripple him for further investments. With the rapid progress of science five or six years, at most, superannuates a book; another and a revised edition comes out,

or some other writer prepares a treatise on the same subject, which rightfully claims precedence over its forerunners. It is far better for the buyer, with say a hundred dollars to spend on books, to lay it out in getting a number of separate treatises and monographs, any one of which will cost comparatively little to replace by the purchase of a new edition, than to spend the whole sum in one of these subscription series, all of which grow old and of which no new edition will be published, simply because the purchasers will be too smart to be caught twice in the same trap. Is anybody so wild as to suppose that the shrewd house which published Ziemssen's work contemplates a second edition of it?

There is also a lack of individuality in these big books; though the different parts are written by different hands, they are all licked into shape by one editor; they must all be of such a length as will fit into the general scheme; they must all have a similarity of treatment and presentation of the theme; considerations which the author of an independent treatise does not have to take into account, and which hem and cabin the contributors, often to their literary detriment, as more than one has acknowledged to us.

These are not all the objections to this method of catering for the mental wants of the profession, but they are enough, it seems to us, for the medical men of the United States to join in letting publishers know that henceforward the countenance and patronage of the profession will not be given to scientific works "published exclusively by subscription."

A SERIES OF PRIZE QUESTIONS.

The prize questions which are proposed by the various medical bodies throughout the world may be taken to indicate the points on which information is most desired, or subjects which, for their importance, deserve particular study, or those which merit special encouragement. For any of these reasons it is interesting to see what topics have been put forward, and we select a few for that purpose.

The Belgians are much given to proposing prize questions, and some of the amounts are well worth striving for, apart from the fame which the prize essayist obtains, the help it gives him in professional advancement, and the satisfaction he experiences in the consciousness of work well done.

The Royal Academy of Medicine of Brussels announces a prize, to be awarded in January, 1884, of eight thousands francs ($1600), for the best explanation of the pathology and therapeutics of the diseases of the nerve centres, especially epilepsy, illustrated by clinical data and experiments. If the essayist is successful in making a decided advance in the therapeutics of such diseases, if, for instance, he discovers a successful treatment for epilepsy, he is to receive in addition to the sum above stated a second sum of twenty-five thousand francs ($5000). This handsome amount has been placed in the hands of the Academy by a person who does not desire his name to appear.

Other prizes offered by the Academy are for essays on the questions:—

"What is the nature of the influence of innervation on the nutrition of tissues?"

"What part do living germs play in the etiology of diseases?"

"What effect does drying, as a means of preservation of plants used in medicine, exercise on their medicinal properties?"

All these subjects are to be studied in the light of original investigations and experiments.

Still another prize, especially designated as for *international* concurrence, is offered by the same body, for the best dissertation on the subject:—

"The value of spectral analysis for forensic medicine and sanitary science, exhibited by original experiments and investigations?"

The essays are to be sent in not later than the last day of December, 1882, and the prize is announced as 1200 francs.

Turning to Italy, we find an announcement of the Academy of Medicine of Turin, of a prize of 20,000 lire ($4000) for the best essay "On The Physio-Pathology of the Blood." This is the "Riberi Prize," and is open to the world, but

the essay must be either in the Italian, French or Latin tongue.

In Paris the Société de Chirurgie has lately announced three prizes for competition this year. The subjects are:—

"The remote results of Ovariotomy."

"The etiological rôle of contusions in the development of neoplasms."

"The history and theory of union by the first intention."

The second of these is perhaps the most generally interesting one, although the first is undoubtedly one of the active questions of the day.

In conclusion, we may add that in our own country, among other bodies, the American Neurological Association offers a prize of five hundred dollars, to be known as the "William A. Hammond Prize," and to be awarded at the meeting in June, 1882, to the author of the best essay on the "Functions of the Thalamus in Man," to be sent in by February 1st, 1882, and the Warren Prize Committee offer a premium of $400 for the best dissertation worthy of a prize, upon the following subject: "Chronic Bright's Disease (Parenchymatous and Interstitial Nephritis). The Nature and Mutual Relations of the Derangements in the Circulatory and Secretory Organs." Dissertations should be forwarded to the Resident Physician, Massachusetts General Hospital, Boston, on or before February 1st, 1883.

Notes and Comments.

Chloral in the First Stage of Labor.

Dr. B. Bribach, of St. Louis, in the St. Louis *Courier of Medicine and Collateral Sciences* for May, 1881, speaks strongly in favor of chloral as a safe and powerful agent to alleviate the distress of and to shorten the first stage of labor, He also believes that more extensive operations will prove that, besides this, it fills an indication of much greater import to the subsequent welfare of the mother, namely, to lessen the risk of laceration of the cervix.

During the last few months of his service on the lying-in floor of the Female Hospital, he gave chloral to the majority of parturient women, excepting only those cases, mostly multiparæ, with which the first stage was short and easy, and a few others where its use was contraindicated by existing heart lesions.

The mode of exhibiting the drug consisted in giving fifteen grains every half hour until the patient came under its full influence; in unusual rigidity of the os thirty grains were given as the initial dose. The total amount in each instance varied from thirty to seventy-five grains, forty-five grains being sufficient in the majority of cases. To a few patients thirty grains were given by enema, and he thinks that in the parturient state chloral acts even more promptly and satisfactorily when given by the rectum than it does when given by the mouth.

Its effect in modifying the dilating pains of the first stage, by rendering them less frequent and more effective, is marked, and the teasing, wearing sensation in the interval between the pains, with its suffering and the lamentations of the patient, subside, giving way to a state of peaceful somnolence.

This effect is often so very striking that the parturient process seems to be entirely suspended. Digital examination during the pains, however, shows the uterine contractions to have increased in efficacy, from the more powerful protrusion of the amnion and the rapid progress of the first stage.

No less marked is its effect on the os uteri, the functional rigidity of which it overcomes with wonderful rapidity.

Lacerated Cervix as a Cause of Tardy Labor.

Dr. George H. Rohé, of Baltimore, relates in the New York *Medical Journal and Obstetrical Review*, for August, 1881, two cases bearing on this subject. The first was that of a German lady, aged 28, and the mother of five children. Her labors had generally been easy. In October last she had consulted Prof. Erich on account of painful uterine symptoms which, upon examination, were found to be due to an extensive bilateral laceration of the cervix, but being in the fifth month of pregnancy, an operation for its relief was postponed. On the 6th of February Dr. Rohé was summoned to her, and on arriving at the house was told that she had suffered pretty severely from pains resembling labor pains for two days, and that they had been longer and coming on at shorter intervals. A digital examination revealed the os high up in the pelvis and dilated to the size of a half-dollar. The rim formed by the os was still thick and fleshy, and evidently in no condition for dilatation for some time to come. Severe pain was complained of when the os was touched by the examining fin-

ger. The Doctor directed thirty drops of deodorized tincture of opium to be given when the pains became severe, and counseled patience. He saw her at intervals until March 12th, when she was delivered of a well-developed, living male child. The pains had continued at intervals, being more or less severe, for the entire five weeks, yielding only temporarily to the above-mentioned doses of opium, or half-drachm doses of chloral hydrate. By the 15th of March she had recovered from the effects of her labor, and suffered only moderately from the symptoms of cervical laceration. She had never been a sufferer from neuralgia.

The second case resembled the first in its general character. There was the same tenderness of the lacerated portion of the cervical ring, great suffering being elicited by its being touched. She had labor pains from the 21st of April until the 5th of May, when she was delivered of a well-developed female child. The Doctor states that having carefully examined the obstetrical and gynæcological literature accessible to him, he finds, with a single exception—Goodell—no mention of the relations between lacerated cervix and lingering labor.

The Treatment of Uterine Myoma by Ovariotomy.

Mr. Lawson Tait, in the *Annals of Anatomy and Surgery*, for June, 1881, discusses the relative merit of the treatment of uterine myoma, by enucleation, hysterotomy and ovariotomy. He says that myomata, which require surgical treatment from their mere size, are very rare, only two such cases having occurred in the author's practice, and in one of these he removed the tumor by abdominal section successfully, in the other unsuccessfully. Cases where the tumors press upon neighboring organs are numerous, but are generally relieved by pessaries; in one case only had he to remove it, and the result was successful. Hemorrhage is the most frequent condition demanding surgical interference, the use of ergot or the injection of astringent substances seldom producing more than temporary benefit, and the hemorrhage, far from ceasing in a large number of cases at the ordinary climateric period, as is generally supposed, the menstrual flow is on the contrary prolonged for a number of years beyond the ordinary climateric age, producing chronic anæmia and frequently proving fatal. The operation of enucleation, the author says, he will never undertake again. The removal of these tumors by abdominal section has yielded two recoveries out of six operations. In two more cases he attempted to enucleate from the abdomen, but had to desist, and both patients died. Ovariotomy has in the author's hand yielded much better results, about ninety per cent. recovering. The tumors rapidly diminish in size after the operation and the health improves.

The method of the performance of the operation is very simple. He makes the smallest possible incision, often barely two inches, and searches with his left fore and middle fingers for one ovary after the other. He does not remove one until he is satisfied he can remove both, and he has only once failed in doing so. The mesovarium is then transfixed with a hooked needle, and a loop of silk brought through. He then ties it by the special knot, which he introduced some time ago, under the name of the "Staffordshire knot," and which he has never found to slip. The ovaries are then cut off with scissors or knife, as is most convenient, and the wound closed. In one case he had to make a ten-inch incision, and pull a very large tumor right out of the abdomen before he could find the ovaries, which were down behind it. He had a great deal of difficulty in packing the tumor back into the abdomen, but the patient made an uninterrupted recovery, and the tumor was—at the time of writing, two months after the operation—less than it was at the time by at least one-third, and the hemorrhage had not recurred.

Iodide of Potassium as a Cause of Bright's Disease.

In an article which appeared in the *American Journal of the Medical Sciences* for July, 1881, Prof. I. Edmondson Atkinson, of the University of Maryland, calls attention to the large proportion of cases treated for advanced syphilis that present, after death, evidences of marked kidney disease; and, in this connection, to the fact that syphilitic renal disorder in its characteristic lesion, the gumma, is comparatively rare, while the forms the most frequently encountered are not in themselves syphilitic. From a series of observations made upon seventy cases of late syphilis, of which nineteen presented evidences of renal alterations more or less grave, he comes to the conclusion that there is a relation existing between the administration of the iodide in these cases, and the appearance of mucous or hyaline casts and albuminuria, as in a number the abnormal elements gradually disappeared after the cessation of the remedy.

While he believes that the evil effects of the iodide of potassium are small and for the most part transitory, he thinks that the occurrence of

more severe alterations is not impossible, nay is probable, and that some individuals are more susceptible to these evil effects than others.

On the Etiology of Scurvy.

Dr. O. J. Coskery, of Baltimore, in a paper read before the Clinical Society of Maryland, and published in the *Maryland Medical Journal*, gives the history of two well marked cases of scurvy. Both patients, as far as could be learned, had lived upon good, nutritious food, containing the usual quantity of vegetables. The author believes, after a careful inquiry into the causes of scurvy, that an exclusive diet, though one of the chief causes, is not the only one, but that it may be produced by any depressing cause. This is a subject which merits further attention. We have long been of the opinion that invigorating exercises and amusements, singing, reading, etc., form valuable adjuvants in ship hygiene.

Ovariotomy of Milk Cows.

In an excellent paper on milk, published in the New York *Medical Record*, August 6th, 1881, Dr. E. F. Brush recommends the removal of the ovaries from milk cows by the operation known as spaying. If this operation, says he, were more generally adopted by the owners of dairy cows, we would avoid many of the influences which affect the value of milk. If, after a cow has calved and the flow of milk has attained its normal condition, this operation were performed, we would avoid those conditions in the cow which have a deleterious effect on the milk, such as the recurrence of the sexual desire, pregnancy, and the like. A cow once spayed will continue to give milk during the remainder of her life.

Antiseptics as a Safeguard Against Puerperal Fever.

Dr. Jas. G. Hyndman, in a paper on the above subject, which was read before the Obstetrical Society of Cincinnati, April 14, 1881, and published in the *Obstetric Gazette* for May, states that during the past summer he had under his care, for a period of about three weeks, an unusually severe case of puerperal fever, in which catheterization was very frequently necessary. The discharge was profuse and of such very foul odor that disinfectant vaginal injections were daily necessitated. The fact that he had been engaged to attend another lady some time during this period, led him to make his ablutions far more thorough than might have been the case otherwise, using thymol in the proportion of three or four parts to the thousand of water. This removed from his hands all odor of the putrid discharges far more rapidly than would carbolic acid, and possessed the decided advantages over that substance of producing no irritation and of having itself a rather pleasing odor. At about the worst stage of his case of puerperal fever, he was called to attend the lady referred to. She had a normal labor, continuing several hours, and made a rapid recovery without the slightest manifestations of febrile disturbance. Within a few days of this time, while still in attendance upon both these patients, he was summoned by a midwife to deliver a retained placenta. Subsequent inquiry showed that this woman also recovered promptly after delivery.

Quite recently he has again had the opportunity of testing the disinfective power of this agent. He attended a case of natural labor within an hour after leaving a patient with facial erysipelas. The same precautions taken in the previous cases were here followed, and no unfavorable symptoms ensued.

He therefore speaks with confidence regarding the efficiency in such cases of immediate and thorough disinfection and antiseptic methods, believing that similar precautions, if generally conformed to by physicians, would very soon prove the inutility of the great sacrifice of practice, which should be our only alternative.

Special Reports.

NO. XV.—DERMATOLOGY.

(*Continued from page* 192).

The Anatomical Seat of the Fungus in Tinea Tonsurans.

Dr. A. R. Robinson, in a paper (New York *Medical Journal*) March, 1881, on this topic, gives the results of his studies for the past two years. In one case he excised a portion of skin, in such a way that part was affected by the disease, and part was normal skin. On studying sections, the fungus, consisting of spores and mycelia, the former more abundant than the latter, was found to be lodged, in some cases in the upper, in some in the lower layers. In the stratum corneum the greatest number was observed, where this structure surrounds the hair and forms parts of the internal root sheath, that is, from the neck of the hair to the free surface. In the rete Malpighii both spores and mycelial threads were present. The spores were either isolated, in groups or in rows. Rarely more than five or six were found in any group or row.

In the corium, the spores varied in quantity, but were disposed in the same general way already described. Their shapes were either round or cylindrical. In the subcutaneous tissue the spores were also found in great number, surrounding empty hair follicles, in fact, they were as plentiful as in the corneous layer.

Dr. ROBINSON would conclude that the anatomical seat of the fungus in this disorder differs in different cases. It may be seated only in the corneous layer and hair-shaft, or may extend into the subcutaneous tissue. Where a large number of hairs fall out entire, the fungus is seated deeper than when the hair is only stubbed.

This conclusion is not entirely in accord with the result obtained last year by Dr. UNNA. This observer (*Vierteljahr. für Derm. und Syph.*, Heft 2, 3, 1880) ascertained, by examining sections of skin affected with favus, that the parasite is not found in the deeper living layers of the epidermis, but is limited to the horny cells. It passes from them to the internal root sheath of the hair, thence to the cuticula, and finally penetrates the shaft. The external root-sheath and the hair-bulb remain unaffected. Inflammatory cell exudation is found around the superficial blood vessels, and obstruction in the sweat ducts and hair follicles leads to the formation of cysts. Dr. UNNA recommends the use of boracic acid and vinegar lotions in parasitic skin diseases.

Treatment of Tinea Tonsurans.

Tinea tonsurans, improperly called herpes tonsurans, says M. BESNIER (*Jour. de Med. et de Chir. Pratiques*), and which should always be designated by the term tricophytis, from the parasite which causes it, is of so long duration and demands so long a treatment, with so many changes in the medicaments employed, that it is necessary to have many means to combat it at the disposition of the practitioner.

It must, however, be remembered that this affection tends, in the end, but after long duration, to spontaneous cure; therefore, no substances capable of determining alopecia or the formation of cicatrices should be used.

This is what may happen after applications of croton oil, either when pure or diluted with other substances; the pustules formed on the scalp induce, ulteriorly, the disappearance of the hair at the points they occupied.

In order to follow out these indications M. BESNIER, in certain cases of tinea tonsurans, employs the following treatment:—

The head should be shaved, the scalp well washed with soap, morning and evening, and about the size of a nut of the following ointment applied over the surface:—

R.	Ung. petrolei,	48 grams	
	Acid boracic,	1 gram	
	Sulphur sublimat.,	1 gram.	M.

M. BESNIER has also experimented with the following ointment, recommended as a parasiticide by MALCOLM MORRIS, of London:—

R.	Thymol,	2 grams	
	Chloroform,	8 grams	
	Ol. olivæ,	24 grams.	M.

This preparation, more irritating than the other, may be used in the same way.

Herpes and Herpetism.

Probably the most eminent dermatologist of Spain is Dr. DON JOSE EUGENIO DE OLAVIDE. He has just published a work entitled *Lecciones sobre las Dermatoses Herpeticas.* In it he describes herpetism as a constitutional disease, only appearing as a cutaneous affection in the less grave of its manifestations. Its four periods are (1) acute musculo-cutaneous, (2) chronic circumscribed, (3) nervous, and (4) visceral. He also divides it into malignant herpes, benign, anomalous and mixed. As an internal remedy he has found *arsenic* to yield the best results in ordinary cases, and he believes that the good results obtained from this drug in various affections of the lungs and bronchial tubes are due to the fact that such affections are merely the manifestations of the herpetic dyscrasia. He has seen instances where herpetism has simulated, in all respects, true pulmonary tuberculosis.

Tar and the balsamic preparations are also valuable internal remedies, and he expresses his opinion that if we could administer tar as freely as we can apply it externally, we should find all herpetic diseases curable by this means.

In the last stages of herpetism the digestive organs are so weak that arsenic cannot be taken. For such cases quinine, the ferruginous tonics, and cicuta are to be our resources.

As for sulphur, so far from being useful in this disease, as some have maintained, it is highly prejudicial, the mistake having arisen from confounding herpetic with scrofulous and rheumatic diseases.

The topical treatment is spoken of with minuteness and appreciation.

Finally, we must give Dr. OLAVIDE'S classification of herpetic disease:—

First group:—

Erythema,
Roseola,
Urticaria.

Second group:—

Erysipelas,
Eczema simplex,
" impetiginoides,
" rubrum,
Herpes phlyctenoides,
Zona,
Pemphigus.

Third group:—

Lichen,
Prurigo.

Fourth group:—

Pityriasis rubra acuta,
" alba chronica,
Psoriasis.

Thus it will be seen that he embraces a large section of the dermatological domain under this head.

Lichen ruber.

In the *Deutsche Med. Wochenschrift*, Jan. 1881, Dr. H. KRÖBNER reports a well marked case of this affection, in which the subcutaneous injection of arsenic was followed by very rapid and permanent improvement. After the first few injections the itching ceased, and the patient slept well; the papules then became paler and flatter and ultimately disappeared. Five and a half months later no relapse had taken place.

Pathology and Treatment of Leprosy.

At a recent meeting of the Société Medicale des Hôpitaux, M. CORNIL made a communication on the pathological anatomy of leprosy, and stated that he had found a number of bacteria in portions of hypertrophied skin, which would become a source of contagion in the ulcerative stage of this disease.

M. LABBÉ said that he heard the statement with pleasure, as he had been treating a young leper with hypodermic injections of *carbolic acid*, on the hypothesis of the parasitic nature of the complaint. The improvement had been so great that he did not despair of curing him.

Medicinal Eruptions.

Cutaneous eruptions arising from the ingestion of medicinal agents have within the last year received special attention from VAN HARLINGEN, of Philadelphia, and MURRAY, of Baltimore, both of whom have collected and published much interesting matter on the subject. Additional evidence of various kinds has been brought forward since their articles, some of which we present:—

Chloral Eruption.—According to Dr. MARTINET, *Thèse de Paris*, this eruption is usually erythematous, not unlike that of scarlatina; more rarely it resembles urticaria or purpura. This erythema affects chiefly the face, neck, front of chest, extensor surface of the larger joints, back of the hands, feet, etc. It is apt to appear more particularly after food, or after indulgence in alcoholic liquors. Usually there is no fever, or any general indisposition. It is accompanied by dyspnœa and palpitation of the heart, sometimes of a very intense character. The eruption occurs only in those who are predisposed to it, and seems to be due to vasomotor paralysis.

Furunculosis from Condurango.—In the *Vierteljahrschrift für Dermatologie*, 1880, Dr. J. E. GUNTZ states that he observed furunculosis, associated in one case with acute acne of the face in 20 patients out of 1000 who were taking a strong decoction of condurango for syphilis.

Bromide eruption.—A single woman, aged 26, had taken (*Der Prakt. Arzt.*, in London *Medical Record*, February, 1881) large doses of bromide of potassium for two years as a remedy for epilepsy. For a year the fits had disappeared, but the patient became excessively weak and anæmic, with exaggerated leukæmia, and the subject of a skin affection. On both thighs, the mons veneris, the whole hypogastrium, and on both breasts, the skin was moist, abraded, and covered with warty growths, crusts and scabs. Recovery from all these symptoms followed after three or four weeks when the bromide was given up, but the epilepsy returned.

Iodide eruption.—The following case is reported in the *British Medical Journal* in May last:—

W. K., aged 30, contracted syphilis some time about Christmas last. He was treated for seven or eight weeks by his medical attendant at Coventry, developing during that period a severe attack of roseola and sore throat. At the end of this time, he was advised by a friend to take iodide of potassium in water. The quantity of the drug in each dose was four grains. About three hours after taking the first dose he experienced smarting and burning pains about the face, back, neck and arms, and soon observed a "raising up of a lot of hard lumps" in the localities named. He took no more of the medicine during the day; and by the following morning the "lumps" had entirely disappeared. He again took the medicine, which was followed during the next day by the same train of phenomena. This occurrence took place on several occasions afterwards, the rash invariably appearing whenever he resorted to his iodide of potassium.

Methods of Epilation.

A study of various depilatories is contributed to the *Archives of Dermatology*, April, 1881, by Dr. C. HEITZMANN. He tried introducing into the hair follicles tincture of iodine, carbonate of potash and caustic potash. He found that the

last mentioned, diluted with four parts of water, is, on being introduced to the bottom of the hair follicle, capable of destroying the papillæ of the hair under the symptoms of suppuration. The scars and pigmentation disappear after a few months. He adds the following specific directions for employing this method:—

Begin with a weaker solution of caustic potash (1:6 or 1:5) and watch the reaction. Suppuration may follow one and the same injury readily in one person, scarcely at all in another. Persons of a good, strong constitution bear the injection of a solution of caustic potash 1:4 without evil consequences. Have the solution made fresh for every operation, as decomposition, *i. e.*, formation of carbonate of potash, takes place very soon. Have the field of operation in a horizontal position, in order to control the amount of the injected liquid. Confine the drop to the hair follicle as much as possible, because spilling of the liquid produces dermatitis in the neighborhood, which, however, is easily manageable with free application of cold cream. Run the needle obliquely into the skin, according to the direction of the hair follicle, and give it a free rotating motion, while the drop of the liquid is pressed into its depth. Slight hemorrhage may occur, but is stopped by the introduction of the liquid into the wound. Let the field of operation remain at rest so long as suppuration is going on. Free applications of cold cream are sufficient to mitigate the unpleasant consequences of the cauterization.

The following *depilatory pomade* is given in *La Presse Médicale*:—

℞.	Carbonate of soda,	1 drachm
	Quicklime,	½ drachm
	Charcoal powder,	8 grains
	Glycerine (neutral),	1 fl. drachm
	Lard,	7 drachms. M.

After applying this pomade to the affected parts for ten or twelve days the skin takes a rose tint, and the hairs may be drawn out without pain.

Pathology of Molluscum Contagiosum.

This topic was recently discussed before the Pathological Society, London, by Drs. A. and B. G. Morrison:—

The essential change in molluscum contagiosum is one of epithelial hypertrophy ending in degeneration. To understand where this begins and how it progresses, it is necessary to examine, in addition, the normal skin at a part fairly supplied with hair. The hair follicles of normal skin and from the external meatus, where they were found to be hypertrophied, and molluscum, alike possess a peripheral zone of cells derived from the rete mucosum. In the normal skin there are (1) hair follicles, and these are clearly of a piece with their sebaceous glands. There are also (2) deep interpapillary depressions, some of which may be the usual depressions unusually deep, and some are hair follicles which have atrophied and contain remains of hairs. There are also (3) epithelial processes passing down from the deep surface of the epithelium—evidently initial hair follicles. In the sebaceous gland of the external meatus of the ear, the changes observed are hypertrophy of the peripheral zone, both in its cellular and periplastic tissues. Towards the centre of the gland the hypertrophic cellular products degenerate and contain sebum globules, and at the very centre a cavity is produced by breaking down of the gland contents generally. The appearance of a hair follicle from this part, with its sebaceous glands and without its hair, is very similar to that of molluscum. In molluscum contagiosum there is also exaggerated proliferation of the peripheral epithelial cells, with progressive thickening of their periplasts. The cells contain a transparent material, apparently sebum, enlarge, and ultimately, at the interior of the "tumor," have a cuticular look, and break down on the edge of the central cavity. The "vacuoles" appear to be never empty spaces, but contain a translucent material; they are characteristic of all rapidly growing epithelium that the authors have seen. The "mollusc bodies" are the cells filled with this material, and therefore not specific either. The part first attacked is not the horizontal surface rete mucosum, but that forming the outer zone of a hair follicle with its sebaceous gland, or even more probably that belonging to one of the deep interpapillary crypts above mentioned. The cause at work would not seem to be necessarily a specific agent, but any irritant lodged as above said will set up the hypertrophic condition of molluscum contagiosum.

Eradication of Nævi.

For this and similar purposes the newly introduced *ethylate of sodium* is coming into use. In the *Lancet*, for February last, Dr. B. T. Richardson reports cases of nævus, tattoo and mother's marks, nasal polypus, ozæna, and lupus, in which good results followed the use of sodium ethylate. The author also finds that there are many minor uses to which the ethylate can be put, such as the removal of warts, the destruction of small melanotic growths, ringworm, and hemorrhoids. As he has become more accustomed to its use, Dr. Richardson prefers to apply the remedy with a camel's hair brush instead of a glass rod, as at first recommended. When the solution is used in the form of spray, it should be diluted with absolute alcohol, sp. gr. .795, and sprayed through a Seigle's disperser; the operator being careful not to inhale the vapor himself, as it may produce soreness and irritation of the throat. To relieve the pain that is connected with the application of the ethylate, an alcoholic solution of opium may be added with good effect.

A method of applying *nitric acid* to nævi has been described by Dr. Speirs, in the *Practitioner*. He had the care of a child with a capillary nævus about the size of a hazlenut on the left

cheek. He was puzzled for a safe plan to apply the acid, and goes on to say:—

The following mode, however, proved highly satisfactory, and besides was easy of application. I took an ordinary two-ounce vial, selecting one with as wide a mouth as possible. Having broken off the body close to the neck, I inverted the latter over the nævus, pressing the rim of the glass firmly down upon the skin. This had the effect of forcing the tumor well up into the neck of the vial; and when the acid was applied by means of a pipette, it acted freely upon the whole surface of the nævus. Before removing the vial neck I carefully mopped out all excess of acid with some cotton wool on a probe. I then had the satisfaction of beholding a well-defined circular slough, rather depressed, but with clean cut edges, as if a punch had been used. The child suffered very little pain, and was easily pacified by being put to the breast. The action of the acid was found to have been entirely confined to the tumor, which was completely obliterated. No unnecessary loss of tissue took place, and consequently no cicatricial contraction or distortion of the eyelid.

It is now twelve months since the operation was performed, and the scar is scarcely perceptible, only becoming slightly crimson when the child cries.

The value of *electrolysis* in such cases, and especially where the nævus is on the eyelid, is well set forth in Prof. Knapp's *Archives of Ophthalmology*, March, 1881, by Dr. A. Nieder. He relates several cases. In two of them a tumor consisting of large veins exerted such a pressure on the upper eyelids that the eyes could not be opened. In all instances a complete cure was effected without any untoward symptoms.

Another plan is by *vaccination*. Last April, M. Constantin Paul communicated to the Société Médicale des Hôpitaux the case of a child who had had four large erectile tumors occupying a fourth of the cranium surface, and in whom he obtained a complete cure by vaccination. He spread vaccine over the surface of the tumor, and then made scarifications. A large quantity of vaccine is required, and therefore calf-lymph must be used.

The plan by *bandaging* is not always safe. At a recent meeting of the Clinical Society of London, Mr. T. Smith showed a child in whom one leg was the site of extensive nævoid enlargement. Mr. Smith described three somewhat similar cases. One he had treated by bandaging, which induced a red and painful state of the limb, followed by weakness and death. The skin and subcutaneous tissues were much hypertrophied, and the cellular tissue of the pelvis was invaded by the nævoid growth. A second case was that of a young lady, in good circumstances; the hypertrophy of the limb was very great, but she improved under the better home treatment she enjoyed than was usual in the more dependent classes of society. In the case exhibited, bandaging had been first attempted, but the child's rapidly deteriorating health recalled the experiences formerly gathered under similar circumstances, and an elastic stocking had replaced the bandage, with marked benefit to the patient.

(To be Continued.)

Correspondence.

Recovery from a Gunshot Wound in the Abdomen.

Ed. Med. and Surg. Reporter:—

The general interest attached to gunshot wounds at present, by the attempt on President Garfield's life, induces me to report the following:—

July 4th, 1877. Harry W. B., 7 years and 3 months old, a delicate, nervous boy, was one of a crowd of eight or ten boys, from 6 to 12 years of age, who gathered together on Smith street to celebrate the Fourth with a toy cannon. The owner had surreptitiously added small gravel to the load. All were seated on the ground behind the cannon except the owner and his assistant—the cannon pointing innocently to the centre of the street. But as soon as it was fired, it whirled half way round, and hit my patient in the left lower jaw, near the mental process, where it left a blue line and did no further damage, and immediately above the crest of the left ilium. Both places bled freely. This happened about 9 A.M. Harry was frightened nearly to death for an hour, but feeling no pain whatever from either wound, he stole out of the house, and celebrated until 4 o'clock in the afternoon. I saw him an hour afterward. The hole made in the jaw, as well as the one over the hip, is small. My probe at the hip is lost in the tissues, and will not enter more than two inches. The left iliac space is tender to touch and upon motion. A narrow band of pain runs in a diagonal line from the wound on the hip to, and ending in a spot about one and one half inches in diameter to the right of, the umbilicus. I tell the mother to bathe the wound freely in dilute carbolic acid water, keep the boy perfectly quiet for several days, and be prepared for any sudden outburst of pain and inflammation.

July 5th, 9 A.M. Harry is up and dressed. Vomited three times during the night, and complains of a little soreness through the umbilicus. To keep him in doors, and if pain continues, to poultice with linseed meal. I hear no more from him until five days later. In the meantime he eats, sleeps, plays, and has all his functions in as good working order as any well boy could wish.

July 10th, 12 noon. The messenger who called me was out of breath, having run all the way, saying that Harry was dying. I find him with his knees drawn tightly upon his abdomen, lying on his right side, but almost kneeling upon the bed; his screams are terrific. Has been having short seasons of "belly ache" across the umbilicus, and in a line running to the left hip. These

began before breakfast time. Vomited several times during the night and last evening. Bowels rather constipated. Urine scant, high colored. Tongue has thick, white coat. Whole surface cold and mottled in appearance, hands and feet clammy. Has not allowed anything to touch his abdomen, and consequently no poultice has been applied. I press quite forcibly upon his bowels, but give him no extra pain. He is so restless that I cannot possibly place the thermometer, nor can I count the respirations because of his crying and screaming, a continuous wail. Pulse 127 and variable. While a light linseed meal poultice is being made, I apply chloroform from the umbilicus to the hip, only to make him scream louder. I give him solution of morphia twenty drops at once, per oris, and thirty drops per rectum, and leave four Dover's powders of two and a-half grains each, one to be given every two hours, if necessary.

July 10th, 7 P.M. Dr. Wm. E. Clark, a surgeon of large experience in gunshot wounds, sees Harry with me. "Not one chance in ten, but narcotize," was his counsel, as he sorrowfully shakes his head.

July 11th, 9 A.M. Harry bounds from one part of the bed to another, keeping his knee and elbow position, and screaming "mine belly, oh, mine belly," at the top of his voice, which is heard fully a block away. Pulse 130, with hardly an interval between the beats, and variable. Great thirst, and intolerable itching from the opiates. All the symptoms are worse. Eleven stools since midnight, and vomited several times slightly. Had severe nose bleed, followed by throwing up large pieces of coagulated blood. Give him eight grains of hydrate chloral every two hours (the opiate having given out). Continue poultice with laudanum, water, beef tea or boiled milk, at regular intervals.

July 11th, 7 P.M. Worse. Gave in addition to the eight grain chloral every two hours, one-eighth grains morphia every two hours, alternating them.

July 12th, 9 A.M. No rest during the night for himself nor for the neighborhood. Tongue covered with thick, brownish fur, the edge and extreme tip being clean. Nausea. Bowels quiet. Pulse from 130 to 135. Cannot place thermometer nor count respirations. Skin not uncomfortably hot to the touch. A space, including the umbilicus, of about one and a half inches in diameter covers the burden of pain. Increase the morphia to one-fourth grain every two hours, the chloral remaining eight grains. Position still the knee and elbow.

July 12th, 7 P.M. Dr. Wm. E. Clark again sees him. Pulse too quick to count, bounding, beats running into each other. Umbilicus pouts slightly. Has changed his position, so that he lies with his thighs still strongly flexed on his left side. Respiration short and labored; has been getting shorter for the last twenty-four hours. Abdominal muscles not in use, but the shoulders are lifted with each inspiration. Eyes naturally large, are very large and receding far into their sockets. Muttering and picking his face and bedclothes. "Not one chance in ten," again says Dr. Clark.

July 12th, 10 P.M. Patient is worse; throws himself and wails piteously, "mine belly, mine belly." Bowels moved considerably at three different times since 7 P.M. Stop beef tea. Give him water in limited quantity, and ½ grain morphia every hour, together with 10 grains of chloral, until quiet.

July 13th, 6 A.M. Worse: continue.

7 P.M. Pulse 160. Continue.

10 P.M. Harry has persisted in screaming without an interval from the time I left, at 7 P.M. I ordered a quick hot sponge bath, change of poultice, and with an extra dose of morphia and chloral, he rested well for nearly four hours, screaming, however, whenever I tried to leave him or take my hand from him. Becoming restless at 3 A.M., July 14th, I ordered a fresh cup of two-thirds strong table tea and one third milk, which he drank with relish, and sank at once into a sound sleep until 10 A.M. At this hour his pulse is 140. Tongue still covered with brown fur; and now begins another season of pain. But I feel that he is so much better that I only give him ten grains chloral every four hours, alternating it with ½ grain morphia every four hours.

July 14th, 6 P.M. Rested comfortably from 11 A.M. Pulse 132 to 136, with distinct beats. Temperature 99. Respirations, 40. Tongue cleaning at the root. Has taken three cups of milked tea, with benefit. Is breathing deep and with abdominal muscles; shoulders quiet. Rolled over on his back to sleep, with both legs extended.

July 14th, 9.30 P.M. Father calls, in consternation, with the report that Harry had had two large stools, with renewed pain and suffering. Give him ½ grain morphia every hour, alternating with 10 grains chloral every hour until quiet.

July 15th, 7 A.M. Slept well all night. Boy feels fresh and rested, greets me with a smile, if one can smile who is so emaciated. Wants a "big dinner and a pail of water to drink." Had two more stools, each with about one tablespoonful of pus; has frequent discharges of wind. Pulse 116. Order a full quick sponge bath, with hard soap, iced tea without milk, toast and small piece of steak.

July 15th, evening. Cross, nausea and pain in bowels, pulse 112. Confine him to boiled milk and dry toast. Stop opiates.

July 16th, 5 A.M. Fell out of bed at midnight, which made the old pain through the umbilicus return. Pulse 120, and thighs flexed upon abdomen. Fresh poultice, with laudanum, 10 grains of chloral every hour until relieved.

July 16th, 3 P.M. Slept most of the time since morning. Pulse 112, regular. Continue.

July 17th, 9 A.M. Pulse 100. Temperature 98¼. Tongue two-thirds clean. To eat moderately, but to confine himself to tea without milk, or boiled milk, toast, crackers, small piece of steak once a day.

July 18th, 9 A.M. Vomited yesterday several times a glairy substance with several pieces of coagulated blood the "size of house-fly." Continue diet, and 5 grains of chloral every three hours.

July 20th. Some nausea and vomiting. Sleeps four hours at a time.

July 23d. Wants to get up. Is very weak and reduced to a shadow. Still uses poultice. Pulse 92. Has in addition one egg and one baked potatoe daily. To eat three regular full meals daily, and a small lunch between if he needs it. Stop all medicine.

July 28th. Feels well and eats well. No soreness whatever in abdomen. Both wounds are healed up. Bowels and kidneys normal. Pulse 87. May gradually resume his old habits. To wear flannel bandage and flannel shirt as extra clothing, also shoes and stockings.

July 30th. Cannot sit up more than one hour a day. Discharged convalescent.

It is now four years since he was shot; for the past two years he has lived with his parents in the country. His health is excellent, but three or four times every year he has seasons of the old "belly-ache," as the result of carelessness. He cannot safely go barefoot, nor can he leave off his flannel shirt, even in the hottest weather, nor chill his feet in winter, without suffering greatly from the exposure. ODELIA BLINN, M.D.

Chicago, Ill.

Treatment of Malarial Fever.

ED. MED. AND SURG. REPORTER:—

Having lived for years on the banks of the Mississippi river, where intermittent and remittent fevers are the most constant maladies the physician has to combat, I will give my treatment in the chronic forms of this disease, in connection with enlargement of the spleen; and where it has been persistently adhered to for five or six weeks, I cannot record a single failure.

℞.	Sulphate quinine,	ʒj
	Crys. iodine,	gr. xv
	Ipecac pow.,	gr. xx.

Triturate the iodine; add the ipecac and quinine, triturating the combination well; divide into forty pills.

SIG.—One pill half hour before each meal.

I give the following prescription in connection with the above, to relieve the visceral obstruction and engorgement:—

℞.	Fluid ext. mandrake,		
	Fluid ext. leptandrin,		
	Fluid ext. stillingia,	āā	ʒj
	Whisky,		ʒij. M.

SIG.—Teaspoonful after each meal.

It will be necessary to check the paroxysm with an antiperiodic before commencing the above treatment. In very obstinate cases, where the disease is of long standing and the spleen is very much enlarged and indurated, an application of the comp. iodine ointment every other day will facilitate the reduction of this organ.

W. L. BELL, M.D.

Randolph, Tenn., Aug. 2d, 1881.

Prolapsus Uteri Treated by the Rubber Supporter.

ED. MED. AND SURG. REPORTER:—

I should like to report very briefly a case I have had under my care, and to point out a means of relief which I think should be more widely known by the profession. I was called to see Mrs. C., a married woman, age 41 years, in September, 1880. I found her suffering from prolapsus uteri which she had been afflicted with for over a year: had been treated by a number of physicians during that time, but without success. I obtained a Staufer's Economy Supporter, through the MEDICAL AND SURGICAL REPORTER office, with directions how to apply it. My patient at first derived little benefit from it. I sent her to New York to see a distinguished specialist, and he diagnosed it to be a case of prolapsus uteri, with chronic catarrh of the bowels. He advised me to continue the use of the supporter.

I subsequently obtained a loan of an additional instrument, direct from the manufacturer, to alternate and assist the former; this, together with his instructions, led to the most satisfactory success, so that my patient is enabled to do all of her household labors without any difficulty.

As the liberality of the manufacturer, in alternating instruments, enables any physician to obtain one that will fit any case, I am satisfied that if other physicians would pursue the same course, most, if not all, the difficult cases, of which many are bedridden and helpless, might be relieved. S. A. KEMP, M.D.

Callicoon, N. Y.

NEWS AND MISCELLANY.

Sanitary Statistics of Jews.

At the close of an article in the *Revue Scientifique*, May 14, a writer says:—

We believe that we have been able to show that nearly everywhere the Jews enjoy the following physiological immunities, when compared with the inhabitants of the countries in which they are established:—1. Their general fecundity (the relation of births to population) is less. 2. According to locality, their marriages are more or less fertile, but everywhere they preserve a larger number of their children. 3. They have much fewer illegitimate births and infants born dead. 4. The proportion of male births is sensibly higher. 5. Their mortality is less, and their mean life is longer. 6. Their increase, by the preponderance of births over deaths, is more rapid. 7. If they do not completely escape contagious diseases, they are less severely affected by them. 8. They are protected from certain diseases, such as pulmonary phthisis and scrofula. 9. They become acclimatized and reproductive under every latitude.

These immunities resist the generally miserable condition which all observers attribute to them, as they do the frequency of their consanguineous marriages and their sojourn in cities, remote from the salutary influences of rural life enjoyed by the majority of the other inhabitants. What can be the causes of these privileges? Must we regard them, with a large number of authors, as the result of a superior vitality inherent to the race, which has been preserved intact through ages, and in spite of the differences of climates, in consequence of an almost complete absence of crossing? Must we seek these only in the persevering observation of the laws of hygiene laid down in Deuteronomy? But these rules were

only applicable to the climate under which the ancient Israelites lived, whether in Judæa, or in Egypt during the captivity. Or should we attribute them, first, to the salutary influence of marriage, which Jews contract at a less advanced age than Christians, and also to their following the less fatiguing occupations, and which are but little exposed to accidents? Can we admit, also, that they profit by the beneficial hygienic effects of the spirit of order and economy, of regularity in habits and moderation in tastes, in the relative severity of their manners and the completely private and family life which many observers attribute to them? Finally, are we to admit with others that their state of misery is only in appearance, and that, in reality, their well-being is generally superior to that of the population amidst which they live? All these hypotheses are admissible.

On Supposed Third Sets of Teeth.

Professor Owen writes on this subject, in the July number of the *Journal of the British Dental Association*:—

Teeth are organs that, as a rule, have a term of existence more limited than that of the organism of which they form a part. In many of the lower vertebrates they are shed very soon after they are completed and in use, and are as quickly replaced by others. In the mammalia, however, there is but one succession of teeth naturally shed; but, though the successors of the so-called "milk teeth" last long enough to acquire the title of "permanent," they are rarely retained to a very advanced age. There is, however, a belief entertained by many, of the occasional acquisition of a third set in human centenarians. Thus it is recorded of the Countess of Desmond, that, not many years before her death, which is said to have occurred at the age of 140 years, "she had all her teeth renewed." I was led into a discussion on this point by a worthy clergyman, at the house of a friend whom I was visiting, and to my skepticism as to the alleged age and third set of teeth of the old Countess, he replied that there then lived in his parish an old woman alleged to have passed her hundredth year, who was actually then cutting her third set of teeth. I rejoiced at this instance. I had long been convinced that actual phenomena had suggested the statement, but that the nature of these had been misinterpreted, and I deemed myself most fortunate in having an opportunity of testing the matter. The following morning I was driven to the old woman's cabin. It was in the north of Ireland, and she was sitting crouching over her peat fire, a typical example of human decay. To the shouts of her pastor, the deaf old crone replied by pulling down her skinny lip and exposing the side of her lower jaw, from which there projected through the gum the blackened stump of a tooth, the crown of which had gone many years before. The absorption of the gums consequent on the edentulous state of the jaw in senility, had brought to light this remnant of a long lost tooth. Other stumps of teeth, of which the loss of the decayed crown had been forgotten, might in like manner appear through the shrinkage and absorption of the senile jaw. And this I take to be the true ground of the allegations as to the acquisition, in extreme old age, of a third set of veritable teeth.

"Pow Wow Doctors."

Few people appreciate the amount of superstition still rife in this enlightened country. We recently came across a description of a "pow wow" Doctor, who resides not a hundred miles from Easton, Pa. We quote part of it, as we personally know it to be substantially correct:—

"The only schooling 'Doctor W.' ever received for the 'medical profession' he acquired by a long and varied experience as captain of a gravel boat and bank boss on the canal, from which he stepped to the arduous and responsible position he now fills, and in which he has met with such success as will well enable him to keep the wolf from his own door, at least, as long as he lives.

"To show to what an extent superstition still sways the minds of men, it may be stated that in these days of railroads and telegraphs, and of general enlightenment, the average monthly attendance of patients who call for the professional services of Dr. W. on the first Friday after new moon is *about* 300. Some months there are as many as 500, at other times smaller numbers. Many, with less faith in the moon's influence, but with a lingering notion that there may be some virtue in the Doctor's methods, go between times to his house, to consult him in reference to their ailments. Those who have been at his village on 'moon' days say it is sometimes so crowded with vehicles of all kinds on those occasions, that one 'not to the manor born' would be apt to imagine that nothing less than a circus, a batallion, or some other equally important event had drawn together so many conveyances. Many go by rail, traveling, in some instances, we are assured, hundreds of miles to reach the place."

Antiseptic Ovariotomy.

Professor C. J. Ask, of Lund, in Sweden, contributes to the recently published number of the *Nordiskt Medicinisk Arkiv* a paper on Ovariotomy. He had had thirty cases, of which seven were operated on without antiseptics, before July 1877; in the remaining twenty-three cases antiseptic measures were adopted. Of the seven cases in the first group, two died; while in the twenty-three antiseptic cases there were only three deaths. In the last twelve cases, Dr. Ask has not had one death.

Night Calls and a Jealous Wife.

A contemporary tells of a physician at Shelbyville, Ind., who is sueing for a divorce from his wife on the ground of cruel and inhuman treatment. Having a large practice, he is frequently called out at night. His wife, being jealous, refused to believe that all his absences from home were professional, and demanded that he should stay in of nights. He said his patients would not stand neglect. Then she adopted the plan of taking poison whenever he had a night call, thus compelling him to remain and doctor her.

She swallowed a deadly drug in this way several times, and her life was saved with difficulty. The husband claims that such conduct is a just cause for divorce.

Impressions of Esmarch.

A correspondent of an English journal, who lately visited the Hospital of Prof. Esmarch, writes:—

"What impressed us most during our stay was the earnest, almost chivalrous, devotion to the advancement of surgical science shown by the Professor and all his staff. There is no improvement or new principle of practice advocated by any member of the profession, in any part of the world, that is not canvassed here, and, if worth it, speedily adopted by Professor Esmarch; for, like the clerk of Oxenford, in Chaucer,

'Gladly wolde he lerne, and gladly teche.'"

Statistics of Paris.

The weekly mortality of Paris is within a small fraction of 30 per 1000 annually. A French contemporary states that the number of applications for admission to the Paris hospitals is just now very considerable. The prevailing disorders are fevers and smallpox. It has been found necessary to place as many as ten hammocks in some of the wards, till the other beds became vacant, either by the cure or the death of the patients occupying them. Thus, although there are numerous hospitals in Paris, they no longer suffice for the needs of the population. There is a talk of building two more.

He Came to Brighten the Home of the Aged.

Dr. John J. Taylor, of Streator, Ill., states in the Chicago *Medical Journal and Examiner* for August, 1881, that on April 17 he delivered Mrs. Rebecca Denning of an eleven-pound boy—full time. Mrs. D. is a native of Clay county, Indiana, where she was born the 13th of January, 1827, and consequently was fifty-four years, three months and four days old at the time of her last delivery. She is the mother of thirteen children, and is a large women, weighing about 200 pounds, of a sanguine, lymphatic temperament. Mr. John Denning, her husband, is sixty-four years past, hale and active, physically and mentally.

The International Medical Congress

Closed its session in London last week, after a highly successful series of meetings. Both in a scientific and social respect it fully met the expectation of delegates. The number of these was not far from 2000. The Proceedings were of great importance, and abstracts of them will appear in the REPORTER as soon as our mail advices from England reach us.

American Dermatological Association.

The Fifth Annual Meeting of this Association will be held in Newport, R. I., on August 30th and 31st, and September 1st

ARTHUR VAN HARLINGEN, M.D., *Secretary.*

Items.

Correction.—We should have credited the discussion on the sphygmograph, p. 108, to the St. Louis *Courier of Medicine*, instead of the St. Louis *Medical Journal.*

—The so-called magnetizer, Hansen, whose biological and hypnotical *séances* before the Medical Societies of Austria and Prussia have caused much interest, and have been investigated by the local medical societies, has been prohibited from giving public *séances*, on the ground that his displays are of a physiological character, likely to be injurious to the persons acting as mediums.

OBITUARY NOTICES.

Dr. T. H. Laidley, a well known physician of Greene County, Pa., died at his residence in Carmichaels, July 28th, 1881. Born July 18th, 1793, he was eighty-eight years and ten days old when he died. He was a resident of Carmichaels fifty-five years, and was in active practice about fifty years. He enjoyed alike the confidence of the profession and the community, as a wise and humane physician and a sound and able counselor.

QUERIES AND REPLIES.

Impotency.

MR. EDITOR: In reply to Dr. J. D., of Mo., I would suggest the following prescription, which I have found very beneficial in such cases:—

℞.	Liq. potass. ars.,	ʒj	
	Tr. canthar.,		
	Tr. nucis vom.,		
	Tr ferri chlor.,	aa ʒij	
	Ac. phos. dil.,	ʒj	
	Glycerine,	ʒij.	M.

SIG.—Teaspoonful three times daily.

Mo. W. C. ROSE, M.D.

Dr. V. G., of Mexico.—The diplomas given at Philadelphia were for a while under a cloud, but any official body could readily learn which are bonâ fide. We are informed that the Mexican government requires *all* physicians who hold foreign diplomas to pass an examination. It is not an invidious distinction against this country.

Subscriber, of Maryland.—The principal methods of treating dysentery are (1) the expectant, (2) the saline, (3) the opium plan. In ordinary cases either answers; but in epidemic dysentery the latter, preceded by full enemata of warm water, to remove scybala, etc., is probably the safest.

Dr. C. E. O., of Miss.—You will find the treatment of psoriasis discussed in the Special Report on Dermatology published this month.

Dr. W. H. S., of Pa.—The regular sessions of the Edinburgh and Dublin schools will begin in October.

MARRIAGE.

NAGLE—NITTINGER.—Aug. 4th, 1881, at Emanuel's Evangelical Church, Fourth St., below Poplar, by Rev. J. P. Schnatz, Frank O Nagle, M.D., and Miss Mary Nittinger, both of Philadelphia.